

₩ FLOORING

Product overview 2011/2012



















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ARMSTRONG

THE PRODUCTS







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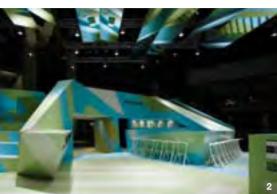
Office

Sports



VISION







- 1 | Armstrong at Euroshop 2011, Architecture students from university Giessen
- 2 | Armstrong at BAU 2009 $\mbox{\bf Architects:}$ LAVA Architects, Stuttgart
- 3 | Armstrong at Domotex 2006 **Architects:** schindler Architects





Just a tiny dot on the map. But how influential.

Delmenhorst: A small town in the Oldenburger Land, far away from the bustling cities of the world. A centre for cork processing for centuries, surrounded by fields and meadows where cows still happily graze. Who would have thought that this dreamy little town would one day prepare the ground for numerous buildings – and milestones of architecture all over the globe.

Even the most spectacular buildings are given a stylish basis by the products developed and made here and at all of Armstrong's other virtually unknown sites with the expertise of German manufacturing - in Paris, Copenhagen and Berlin, Milan and Barcelona, but also in New York and Shanghai. Although great distances may well lie between these bustling cities and Armstrong's production plants, when it comes to architecture and design the floor coverings manufactured there have enjoyed an international reputation for years.

One important factor for such success is an unbeatable combination: the international flair and rapid response of a global player matched with the reliable structures of regional and local service centres. It is this very philosophy of combining an international approach with proximity that offers business partners the greatest advantages: They benefit from consulting as equal partners, based on a global knowledge of the market as well as a portfolio precisely tailored to regional requirements. And from a direct partnership which, wherever possible, relies on sustainable production with local supply.

This is only one of the reasons that has helped Armstrong to become one of the world's biggest manufacturers of floor coverings, offering an enormous product range for virtually every application in the commercial sector. Linoleum is the no-compromise classic in Armstrong's product portfolio, which contains over 50 different floor coverings, developed in the company's design ateliers and manufactured at its production plants.

From there they are then dispatched to all corners of the earth. So does it matter that their home is just a tiny dot on the map?





Bietigheim-Bissingen, Germany



Werk Delmenhorst, Germany



Holmsund, Swede



Teesside, Great Britain



Armstrong

The company - Armstrong

Headquarters Armstrong World Industries

Lancaster, Pennsylvania, USA

LEED PLATINUM

Armstrong's headquarters, built in 1998, is only the sixth existing building – and the first outside of California – to achieve the highest environmental certification offered in the USA.



European Headquarter

Armstrong DLW GmbH
Bietigheim-Bissingen (Germany)

Staff

Worldwide approx. 14.600

Product portfolio

DLW Linoleum, DLW Vinyl, DLW Luxury Vinyl, DLW Fibrebonded, DLW Sports

Regional Customer Service Centre

Belgium, Denmark, Germany, Estonia, Finland, France, Great Britain, Holland, Ireland, Italy, Croatia, Latvia, Lithuania, Norway, Austria, Poland, Portugal, Romania, Russia, Sweden, Switzerland, Spain, Czech Republic, Hungary, Ukraine, Belarus

Applications

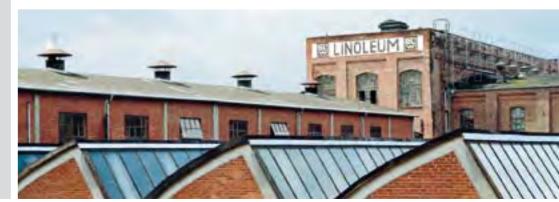
Education, Healthcare, Retail, Offices, Sport Halls, Industrial areas...

For further information see

www.armstrong.eu

To register for Armstrong's newsletter

www.armstrong.eu/my



Object: Armstrong, Delmenhorst, Germany

We all know about the consequences of sleepless nights. But probably none with a greater impact on style.

We do not know how many nights the English chemist Sir Frederick Walton had to do without sleep before his so-called Indian Rubber Substitute was ready for patenting. It must have been guite a few. Nights which initially alternated between optimism and failure. But also characterised by his unswerving determination to succeed. And a no-compromise attitude that remained unaffected even by repeated setbacks.

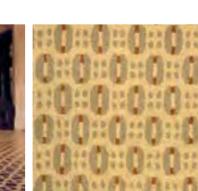
However, the realisation that his patent with the number 3210/1863 was ideally suited as a floor covering was not actually made by Walton himself. He took up the advice of business partners and had his linseed oil compound applied to a base of jute cloth. Once dried, it resulted in one of the most stylish floor coverings of modern times, a product that was

to soon to become a classic of contemporary design: consistently ecological, authentic and admitting no compromise in terms of aesthetic appeal.

Half a century later this acclaimed material of the new 20th century was inextricably linked with another name: Deutsche Linoleum Werke (DLW). Today its merger with Armstrong has made the firm into one of the world's largest manufacturers of floor coverings, with a range that goes far beyond what Walton initially handed down to us.

The list of world-famous architects, artists and designers who have used DLW Linoleum from Armstrong as a unique element of interior design is just as lengthy as the list of buildings in which it has been laid. This floor covering was chosen by Walter Gropius for his so-called Meisterhäuser (Masters' Houses) in Dessau. It can also be found in virtually all the buildings of Stuttgart's Weißenhof Estate built in 1927, while in 1929 Mies van der Rohe used linoleum in his pavilion at the world exhibition in Barcelona.

Today linoleum has lost none of its importance. Not where the leading architects and designers of the 21st century are concerned. And certainly not for the creators of this unique material, who are responsible for developing innovative floor coverings at Armstrong's workshops, laboratories and design ateliers. Every single floor covering is designed to satisfy a wide range of different demands and requirements. Yet they all have one thing in common: their developers' no-compromise approach to quality. They know that sleepless nights will pay off

















Sir F. Walton patents a floor covering which ultimately forms the basis for the development of linoleum.

1882

1863

Linoleum is manufactured in Germany. Three linoleum factories are established at Delmenhorst near Bremen: Hansa, Schlüssel and Anker. From 1926 merger of Germany's big linoleum factories to form DLW.

The history of linoleum and DLW Flooring

Linoleum floor coverings are designed for the Delmenhorst linoleum works by many well-known architects. The Circle and Square Inlay by Peter Behrens finally establishes linoleum's international

1927

For Bauhaus architects linoleum is an important material. Leading designers and architects such as Mies van der Rohe, Walter Gropius and Le Corbusier also work with linoleum.

Floor coverings made of vinyl are developed at DLW and included in its product portfolio.

Fibrebonded floor coverings, in particular the high-quality product Strong, are added to the range of floor coverings.

The Green movement allows linoleum to stage a comeback as a natural material.

DLW Luxury Vinyl is added to its range of high-quality, appealing products with top design quality and variety, which are especially popular in the retail sector.

DLW becomes part of Armstrong World Industries, one of the world's largest manufacturers of floor coverings.

2005-2010

DLW Linoleum is awarded numerous design prizes: 2005 ADEX Gold, 2006 if award for Product Design, nominated for the Design Prize of the Federal Republic of Germany in 2006, 2007, 2008 and 2010. The new innovative collection Lino Art wins the red dot award "honourable mention".

2007

Armstrong celebrates 125 years of linoleum production at Delmenhorst.

Launch of DLW's new Linoleum collection, developed on the principle of the colour wheel.



Object: Glasraum Stuttgart, Germany, 1927 Architects: Mies van der Rohe, Lilly Reich















There are many good arguments to prepare the ground for the future. But no reason to move to the desert.

Abu Dhabi in the year 2016. Everyone from the world of architecture will be making a pilgrimage to this once bleak spot on the earth. Under the scorching Arabian sun 50,000 people will live and work in an area of six square kilometres - in the first climate-neutral city on our planet. The building materials used here each satisfy stringent environmental standards. In Masdar City cars will be just as passé as landfill sites. Although electricity will still come from the power socket, it will be produced at the world's biggest solar power plant. This verdant and temperate eco island in the middle of the desert will enjoy a high standard of living.

USA in February 2007. Al Gore, Bill Clinton's Vice-President, receives an Oscar for best documentary. "An Inconvenient Truth" shows the terrifying consequences of global warming. Gore makes the following appeal: "People all over the world, we need to solve the climate crisis. It is not a political issue, it's a moral issue." In December 2007 he was awarded the Nobel Peace Prize for his tireless work.

Not even a decade separates us and Gore's warning from an architectural future which has already dawned in the land of the oil sheiks with the first cut of the spade for architect Sir Norman Foster's design. From a vision that has been shared by Armstrong for some time, the company has been pursuing a no-compromise environmental programme for around a decade and has continuously improved its production processes in terms of ecology and sustainability.

Here it is spurred on by a recipe for success that has proved its worth for over 150 years: linoleum. This perfect combination of over 98 percent organic and mineral-based raw materials is made from renewable natural products without using crude oil. Linoleum contains linseed oil and tree resins, cork, wood floor, chalk and jute, with these materials being sourced locally wherever possible. It comes as no surprise that this floor covering has an excellent CO₂-footprint and has been awarded numerous ecological labels.

Gauged by the requirements of science, there is probably almost no other floor covering that is so politically correct. And we do not have to wait years to get it.













Ecology - DLW Linoleum

saving resources

The raw materials for DLW Linoleum are 98 percent organic or mineral-based, with naturally renewable materials accounting for 80 percent. DLW Linoleum is produced entirely without crude

easy on the environment

As DLW Linoleum largely consists of renewable raw materials, it is more or less CO₂-neutral over its entire life cycle. It is manufactured using a traditional formula without plasticisers, chlorine or heavy metals.

With linseed oil Armstrong is using a raw material of food-grade quality. All other raw materials are safe and comply with the stringent requirements of the European Toy Safety standard

award-winning

DLW Linoleum has been awarded the following environmental labels: "Blauer Engel", Scandinavian Swan label, certificate of Building Research Establishment in Great Britain (BRE) and Austrian environmental certificate.

certified

The production plant at Delmenhorst has been awarded the EC ecological audit and the EMAS environmental certificate. The facility is regularly inspected by the organisation GUT Zertifizierungsgesellschaft für Managementsysteme and environmental experts.

efficient

The linoleum waste occurring during production is recycled during manufacture.

low-emission

It has been confirmed by the German Federal Environment Agency: DLW Linoleum releases so few organic substances into the indoor air that its emission value falls well below the threshold

sustainable

DLW Linoleum is a long-lasting floor covering whose environmental impact is so low that it can hardly be reduced further.



Object: University of Applied Sciences, Aalen Architects: MGF Architekten GmbH, Stuttgart



There are more recent flooring options for your feet. But rarely such thankful ones.

Times change. But linoleum remains the same. If it could talk, it would have fascinating tales to tell. Amidst the lush woods of the Harz mountains, at Sanatorium Dr. Barner, it would tell of the upstanding ladies who strolled along its columns at the beginning of the last century. And of the gentlemen with their formidable hairstyles who, after a fine meal, solve the worlds problems over cognac and cigars.

Today the so-called Fresh Air Hut, once an ultramodern cabin used to treat breathless city-dwellers, has itself vanished into thin air. Patients instead take advantage of fitness training and light therapy, saunas and wellness facilities – but visitors still wander on the original linoleum floor designed by Albin Müller. It still provides a sterling service even a century later: boasting a slight patina, but still functional and virtually indestructible. A fact that is not exactly profitable for the manufacturer – but all the more convincing for the end users.

The reason for the robustness of linoleum is its unique formula, which has remained virtually unchanged for over 150 years. In office buildings and shopping centres this floor covering shows it can cope with the high demands made on durability and aesthetics and offers an enormous range of colours and designs for bright and inspiring interior design. As it can withstand extremely tough conditions, this product is often a popular choice in the healthcare sector, as well as nurseries, schools and universities. In all these applications linoleum is also greatly appreciated for its antibacterial properties and other hygienic qualities. The high-quality PUR surface protection, which makes this product so easy to maintain, is incidentally also an achievement of this day and age, as is the high-tech production process.

The technical and functional benefits alone make linoleum the first choice when it comes to materials. By using linoleum in their interior design, architects and designers are also declaring their belief in a no-compromise material, in a floor covering that has style like virtually no other.

Suitable for castor chair



Slip resistance



Reaction to fire



Resistance to chemica



uitable for underfloor heatin



wear-resistant

Whether a school, surgery or warehouse: The right DLW Linoleum is available whatever the application.

suitable for castor chairs

The norm is 25,000 revolutions – DLW Linoleum easily manages 100,000!

Product characteristics - DLW Linoleum

antibacterial

Linoleum is ideal in the healthcare sector thanks to its natural, germicidal effect. This, of course, also applies with PUR surface protection.

safe

DLW Linoleum is slip-resistant, flame-retardant, temperature-resistant and not sensitive to frictional heat.

safe to health

DLW Linoleum, including when equipped with the PUR Eco System, has been rated as toxicologically harmless in terms of fumes, following testing according to DIN 53436. It is free of heavy metals and thus fulfils the EN 71 "Toy Safety" standard.

comfortable

Linoleum is by its very nature warm to the feet thanks to its natural raw materials.

ecyclable

Linoleum waste occurring during production is recycled during manufacture.

esistant

The PUR surface protection is resistant to chemicals up to pH 12 as well as to oils, greases and tar according to EN 423.

natural

Linoleum should be exposed to daylight – preferably direct sunlight – so that the natural yellow cast of this product fades.

easy to maintain

Initial treatment is basically not required for DLW Linoleum – for further details please see our recommendations for cleaning at www.armstrong.eu.

piodegradable

DLW Linoleum is almost 100 percent biodegradable by microorganisms during composting although disposal by incineration is entirely safe as well.











Object: Forum Johanneum, Hamburg Architects: Studio Andreas Heller GmbH, Hamburg

It is worth listening to Nature. If only to make sure the colour scheme doesn't get out of hand.

A summer's morning. Brown earth still with the cool of the night. Dewdrops beading on the lush green of the plants. A bright sea of flowers dotted about reaches out to receive the first rays of the sun. Countless different shades, producing an accomplished symphony of colour despite the widely differing hues.

Nature picks out the finest tones for its compositions! Its harmony has acted as a source of inspiration to architects and artists for thousands of years. Their delight in the forms, sounds and colours of Nature has given us moving works of literature, art, music and architecture. This now also provides a sound basis for the colour compositions of the latest DLW Linoleum collection.

The designer: colour expert Peter Zoernack. He has created a colour system that is unprecedented in this form. Every shade of his colour wheel is picked up as a set of three with different graduations of brightness. All shades can be combined within each set for a virtuoso performance, as well as in a global and complementary manner. This is thanks to Nature's system of organisation, which Zoernack has translated into a colour concept for linoleum without making compromises: "It is the veil of these natural shades that imbues them with value and dignity that gives them their elegance."

This has given rise to a harmonious system of colour lines and major enlargement of the grey-black palette over virtually the entire linoleum portfolio. The new Marmorette presents itself alone with 56 shades in 18 colour lines. Granette is sounding forth with a completely new arrangement: Its range of colours has grown from six to 24, in particular including a brand-new tonality which features sand, earth, leaves, grass and water. Colorette with its low-key pattern is available in the existing brilliant shades, but now also boasting new attractive shades of grey and muted tones featuring a pair of colours as a light/dark graduation. Lastly the tried and tested shades of the Bauhaus palette are interpreted by the monochrome classic Uni Walton, offering a cold and a warm range of grey, with a unique light shade of grey at one end of the spectrum and a luxuriant black at the other.

Whether an orchestral piece or solo performance, played piano or forte, in a major or minor key: The new colour collection opens up boundless scope for unprecedented compositions. We look forward to hearing from you.









The colour system

Examples from colour chart















veiled

Peter Zoernack has composed colour levels with different muting effects for every shade:

This colour principle, which he has taken from Nature, makes the new DLW Linoleum collection even more organic, harmonious and natural. Also in DLW Fibrebonded and DLW Vinyl this system was used consistently.

svstematic

Every colour in the Marmorette and Granette range is available in three tonal steps: a light, middle and dark shade. The grey ranges have up to four graduations. In DLW Vinyl Medintone and Favorite and in DLW Fibrebonded Strong 951/956 the three tonal steps were developed as well. Within one tonal step each colour features the same degree of veiling. This consistent system creates an abundance of options for the combination and variation of colours.

communicative

All shades of the colour palette blend in with each other perfectly – whether assembled within a set of three, put together vertically or horizontally or combined in a global or complementary manner. This system is based on Johannes Itten's colour wheel, which shows all shades as primary, secondary and tertiary colours to demonstrate the interaction between them.

brilliant

Bright tones and trend setting colours enhance the natural tonality and provide for varied arrangements of colour.

organic

Organic pigments ensure DLW Linoelum a simple, unadulterated visual.

contrasting

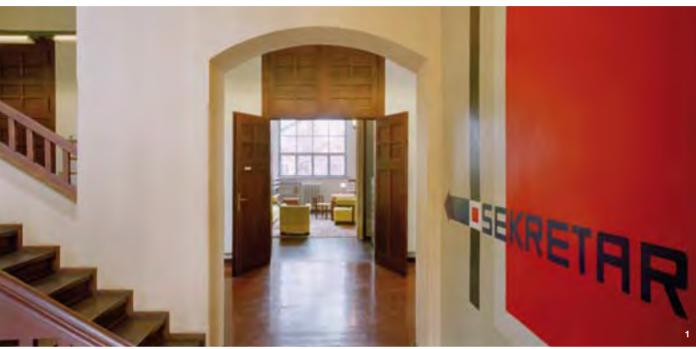
Strong and fine contrasts between light and dark can be created over the entire palette in every shade.



Object: Centre for Psychiatric Treatment, Yverdon-les-Baines Architects: Devanthéry & Lamunière architectes, Lausanne



MONUMENT PROTECTION











MONUMENT PROTECTION ENSURES THE PRESERVATION OF OUR BUILT HERITAGE, AND HELPS US TO RE-INTERPRET IT.

We may breathe new life into historic buildings, yet we can still sense the spirit of the founding fathers. Over a number of decades, the work and efforts of many people have created a very special atmosphere, which still characterises the Düsseldorf Rheinhof, the "Harburger Binnenhafen" (Harburg inland port) in Hamburg, the former Telefunken building in Berlin or the redeveloped industrial complex Leipzig-Plagwitz. These structures have since been transformed into exclusive loft apartments, modern offices, labs, sales and production spaces. And all have one thing in common: their unique character and magical charm.

The concept of urban development has become almost synonymous with the revitalisation and conversion of existing spaces, empty industrial buildings, abandoned docks and disused railway grounds. These are often found in ideal city locations, just waiting for their new lease of life. And they harbour massive potential – potential to reinterpret these seemingly obsolete structures in a manner that preserves their historic charm while breathing new life into the old walls.

The subject of monument protection is a very complex one. Some listed buildings are to be conserved just as they are. This necessitates the skill to preserve the original materials or relive the historic substance as accurately as possible. In many cases, however, only specific aspects are protected: the facade, for example, or the outline or shape of a building. And this provides valuable freedom for ideas and creative architectural concepts, which cleverly re-invent the old so that it harmonises with the new and befits the building's future usage. The task of incorporating the history of the building in its modernisation is both a challenge and an opportunity.

Authentic details of the past may be meter-high rooms, exposed brickwork or rusty pipes. These are convincingly combined with equally authentic, yet modern materials. Linoleum is just one example of such a material. The floor covering in its natural composition has been around for over 150 years, but it is more popular than ever before with today's architects thanks to its pleasant touch, ecological sustainability, minimalist appearance und clear colours. While Uni Walton remains a popular classic, the harmonious colour palettes of the other structures also form the basis for many distinctive room concepts. Armstrong now also offers suitable vintage alternatives in the form of its Lino Art collection, with the genuine metal flakes used in some designs providing a particularly unique appearance. Thanks to its great diversity, DLW linoleum blends effortlessly into its surroundings, but is equally adept at lending rooms an elegant, colourful touch.

1+2+5 | Material: DLW Linoleum, Uni Walton, 107-060 deep brown

Object: Main Building Bauhaus-Universität, Weimar Architects: Henry van de Velde

3 | Material: DLW Linoleum, circle square motive by Peter Behrens

Object: New City Hall, Bremen Architects: Gabriel von Seidl, Müncher

4 | Material: DLW Linoleum, Inlaid Object: Sanatorium Dr. Barner, Braunlage Architects: Albin Müller

₩ LINOLEUM



SUSTAINABILITY

NATURAL INGREDIENTS

Linoleum is the only floor covering offered on the market that is predominantly made of natural renewable raw materials:

Natural resins
 Jute
 Colour pigments
 Linseed Oil
 Limestone
 Wood powder

- Cork powder

ECO-AUDITED PRODUCTION

The greatest impact on the environment arises through our production sequence. On the one hand, we need electrical power to operate our machines, and on the other hand we need heat energy in the form of steam to heat the necessary rollers and other production stages. We take responsibility for our own actions. For this reason we have developed and introduced an environmental management system in our company in conformity with Directive (EG) No. 761/2001 – also called the 'EU Environmental Audit Directive' and 'DIN EN ISO 14001'. Both certifications strive for the same target: a continuous improvement of environmental protection.

USAGE

Linoleum is very versatile and is suitable for a large number of different applications. Whether in healthcare, education, shops or offices – more and more people are demanding a floor covering that sets standards with exciting designs, excellent performance and sound ecological advantages.

DISPOSAL

DLW Linoleum is biologically degradable. When composted Linoleum decomposes. This means that DLW Linoleum generates carbon that can be utilised by various cultures of fungi. Under certain atmospheric conditions and given the presence of suitable minerals, a loss in mass of up to 10 % was observed after just seven weeks.

DLW Linoleum is recyclable, i.e. all material waste is re-used in the production process. Linoleum scrap is minced, assorted and re-circulated again. DLW Linoleum is harmless when disposed of thermally.

COST-EFFECTIVENESS

The long-term maintenance costs of any floor covering are far more relevant than its acquisition cost. Assuming an average service life of about 10 years, long-term maintenance costs may account for about 80 % of the total cost of ownership. This is why a floor covering not only has to be hardwearing but also easy to clean and maintain.









GREEN DIALOGUE











Your contact for all questions on sustainable building:

green_dialogue@armstrong.com

Do you still have questions on our floor coverings and their suitability for certain certifications? Our Technical Service would be glad to help you!



areen dialoque

LET'S TALK ABOUT SUSTAINABILITY - GREEN DIALOGUE!

Sustainability is the order of the day in today's society. The principle of people-focused development that not only preserves the environment and resources but at the same time manages to be economical and ensures that future generations can enjoy similarly high living standards as those we have today, is a challenge to which each and every one of us must rise. The area of sustainable building, in particular, is a key discipline to ensure the sustainable future of our planet. Innovative architectural concepts, intelligent building techniques and of course the selection of the right building materials all combine to ensure that the ecological footprint of new structures built today has a significantly reduced impact on the environment and climate than was the case even only a few years ago.

BUILDING CERTIFICATES



DGNB certificate

The DGNB certification system was launched by the German Sustainable Building Council (Deutschen Gesellschaft für Nachhaltiges Bauen) in cooperation with the German Federal Ministry of Transport, Building and Urban Development. It is a powerful instrument that can be used to plan and evaluate sustainable buildings. In order to ensure that a comprehensive perspective on quality is consequently gained, all relevant fields concerning sustainable building are covered.



LEED stands for "Leadership in Energy and Environmental Design" and certification is awarded by the U.S. Green Building Council. Introduced in the USA in 2000, LEED certification has rapidly developed into an international standard that enjoys an outstanding global reputation.

breeam

BREEAM

The BRE Environmental Assessment Method, or BREEAM for short, was introduced in 1990 as one of the very first sustainability certificates in the United Kingdom and today remains the most widespread and recognized method of certification in the UK. The responsible organisation, BRE Global Limited (part of the BRE Group) is an independent certification body in the UK that offers certification of products and services in the fields of fire protection, security and sustainability to the international market.

The extensive green dialogue brochure can be downloaded at: www.armstrong-flooring.co.uk/content2/commflreu/files/63862.pdf

PRODUCT CERTIFICATES



Blue Angel

The Blue Angel is the oldest official environmental label worldwide and accordingly serves as a national standard in Germany considered as essential by many builders and architects. All of our linoleum coverings have been awarded the environment mark ,Blue Angel RAL-UZ 38' for floor coverings made of wood or wood materials.



Österreichisches Umweltzeichen (Austrian environment mark)

The Austrian environment mark UZ 56 for floor coverings serves as a guarantee for environmentally friendly products and services. It provides the public with information on the environmental impact of consumer goods as a result of their production, use and disposal, and provides environmentally friendly alternative products. DLW Linoleum was awarded this certificate because it satisfies a number of environmental criteria as proven by an independent inspection.



Swan Label (Nordic Ecolabelling)

The Scandinavian Swan Label evaluates the entire manufacturing process of products. It also considers the emission of harmful substances during manufacture in addition to energy and water consumption. Additionally, the Nordic Swan supports important innovations which contribute to environmental protection. DLW Linoleum was awarded the certificate because it stresses the environment as little as possible and guarantees sustainability.





BRE certification from BRE Global Limited (part of the BRE Group) means that all inputs and outputs from the areas of procurement, manufacturing, installation and usage of DLW Linoleum products have been independently verified and their environmental impact has been measured over the entire life cycle. The overall environmental impact of a certain product or process is evaluated using ,ecopoints'. Following evaluation, all DLW linoleum coverings that were tested were awarded the highest ,A+' score.



GUT seal

The GUT seal from the ,Gemeinschaft umweltfreundlicher Teppichboden e.V.' association for eco-friendly carpets, founded in 1990, marks out textile floor coverings that guarantee maximum eco-friendliness and comprehensive user protection at all stages of the life cycle - from manufacturing and installation right through to use and recycling. The GUT seal proves that DLW Fibrebonded carpet was tested for harmful substances, emissions and odour and complies with the strict GUT regulations.



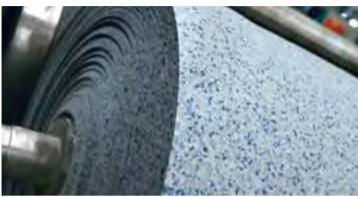
National technical building approval (,Ü' quality control seal)

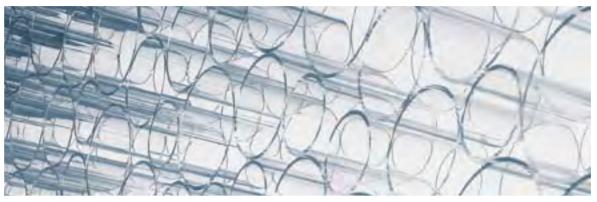
In order to obtain their national technical building approval, the Deutsche Institut für Bautechnik (DIBt) civil engineering institute requires all textile and resilient floor coverings in rooms to comply with certain VOC emission values, which ensure that no user of a building can be affected by the emission of harmful substances.



SUSTAINABLE BUILDING











ARMSTRONG IS MEMBER OF DGNB

GeSBC (German-Sustainable Building Council) is formed to represent the entire value chain of the construction and real estate sector: architects, industry, investors and science are members of GeSBC.



The task of the German Sustainable Building Council is to point out and advance paths and solutions for sustainable building. This includes the planning of buildings, but also their construction and operation. Armstrong gives GeSBC support not only as a member but as an active partner. The DGNB considers itself to be the central German organization for exchange of knowledge, professional training, and for a raising public awareness for this future-oriented part of the building sector. The focus of the DGNB is on awarding the certification for sustainable building. Sustainable building means to build intelligently: The focus is on a comprehensive quality concept that serves the building and real estate sectors, as well as society in general. Sustainable properties are beneficial to the environment, conserve resources, comfortable and healthy for their users, and fit optimally into their socio-cultural surroundings. In the same way, they stand for economic efficiency and long-term value-retention. Sustainable properties are cost effective due to their lower operation and maintenance costs. The manageable additional planning and construction costs will usually amortize in a few years.

THE GERMAN SUSTAINABLE BUILDING CERTIFICATION

For planning and evaluation of buildings, there is a new and clearly structured tool: The German Sustainable Building Certification. As meritocratic rating system, it covers all relevant topics of sustainable construction. The German Sustainable Building Certification was developed by the German Sustainable Building Council (DGNB) together with the Federal Ministry of Transport, Building, and Urban Affairs (BMVBS) to be used as a tool for the planning and evaluation of buildings in this comprehensive perspective on quality. As a clearly arranged and easy to understand rating system, the German Sustainable Building Certification covers all relevant topics of sustainable construction, and awards outstanding buildings in the categories bronze, silver and gold. Six subjects affect the evaluation: ecology, economy, social-cultural and functional topics, techniques, processes, and location. The certificate is based on the concept of integral planning that defines, at an early stage, the aims of sustainable construction. In this way, sustainable buildings can be designed based on the current state of technology, – and they can communicate their quality with this new certificate.



ARMSTRONG IS MEMBER OF ERFMI

ERFMI (European resilient flooring manufacturer's institute) is formed to represent the interests of the resilient flooring industry in ensuring the maintenance of high ethical standard within the industry through the following activities.

LIFE CYCLE ASSESSMENT ON RESILIENT FLOOR COVERINGS

ERFMI, in response to questions on the environmental impact of their products, decided to update the previous life cycle assessment (= LCA) study carried out by the Fraunhofer Institute. This new study to assess the environmental impact across the whole life cycle of a range of resilient floor coverings was completed in 2008. All of the individual members of ERFMI supplied data on each of the product types they produced to LCA specialists PE International who collated the information into a series of European averages which cover the majority of resilient floor coverings sold in Europe. The data supplied covered more than 85% of the European production.

WHY AN EPD?

Many countries around Europe are developing their own systems for declaring the environmental impacts of construction products. Most of these are asking for data in a way that is specific to that country and local manufacturers are asked to contribute data. This has lead to discrepancies between the data being used under different system. ERFMI therefore took the lead by drawing together all its members to provide data for an EU wide Life Cycle Assessment of a broad range of flooring types and specifications. From this study, carried out by PE International in cooperation with ERFMI and its individual members, a series of Environmental Product Declarations have been produced.

The main output of the LCA study is available as a series of Environmental Product Declarations (= EPD) online on the web site www.erfmi.com. Because the overall impact of a flooring over its lifetime it is difficult to produce a single EPD which covers all eventualities, however with the help of the EPD Calculator it is possible to create for all the types of resilient floor coverings investigated in this study, an EPD for a specific use under defined conditions.

Find the EPD calculator at: www.erfmi.com/calcintro.php



ARMSTRONG'S DESIGN AWARDS









Armstrong at Domotex 2006

Armstrong at Euroshop 2008

DLW Linoleun

DLW Linoleum - Lino Art

Sample book DLW Luxury Vinyl



reddot design award

Red Dot Design Award 2011

DLW Linoleum - Form DLW Luxury Vinyl - Scala 100



Red Dot Design Award 2010 - Honourable mention

DLW Linoleum - Lino Art



red<mark>dot</mark> design award winner 2009

Red Dot Design Award 2009





iF communication design Award 2010

DLW Linoleum - Lino Art



2008

iF communication design Award 2008

Fair stand Euroshop 2008, ippolito & fleitz architects



APA Gold Award 2010

Leading architect suppliers for "floor coverings and industrial textiles"







NOMINEE







Design award of Bundesrepublik Deutschland Nominee 2011

DLW Vinyl, Communication Design for Sample book

Design award of Bundesrepublik Deutschland Nominee 2010

Fair stand Euroshop 2008, ippolito & fleitz architects

Architect's sample book DLW Luxury Vinyl

DLW Linoleum

Design award of Bundesrepublik Deutschland Nominee 2008

Fair stand Domotex 2006, schindler architects

DLW Vinyl - Wetroom

DLW Linoleum

Design award of Bundesrepublik Deutschland Nominee 2007

DLW Linoleum

Design award of Bundesrepublik Deutschland Nominee 2006

DLW Linoleum

Green Good Design Award 2010 - Product Design

DLW Linoleum

Good Design Award 2009

Architect's sample book DLW Luxury Vinyl DLW Vinyl Collection 2009

Universal Design Award 2009

DLW Linoleum

ADAM silver 2006

Fair stand Domotex 2006, schindler architects



FLOORING SOLUTIONS

A HUGE RANGE OF PRODUCTS AT YOUR FINGERTIPS









EXPLORE THE DYNAMICS OF ARMSTRONG'S PRODUCT GROUPS. MATCH YOUR NEEDS TO THE CHARACTERISTICS AND TYPICAL APPLICATIONS OF EACH TYPE OF FLOOR COVERING.

盟 LINOLEUM

- A 'classic' flooring chosen for its practicality and performance
- Environmentally sound manufactured from renewable raw materials
- Fantastic array of colours for all designs and interior schemes
- Popular choice for healthcare and education environments
- PUR coating facilitates easy cleaning and maintenance

図 VINYL

- Ideal for high traffic applications such as education and retail
- Array of stylish options chip and linear patterns to wood and metal designs
- Available in sheet and tile formats for easy installation
- PUR coating facilitates easy cleaning and maintenance

図LUXURY VINYL

- Add an exciting touch to interior design
- True to life imitations of wood and stone and many other stunning designs
- Highly durable and easy to install
- Ideal for superior aesthetic requirements
- PUR coating facilitates easy cleaning and maintenance

₩ FIBREBONDED

- Fibrebonded carpet and carpet tiles
- Hard wearing and practical in vibrant colours
- For extremely heavy use in commercial areas
- Also available in antistatic and conductive versions

図 SPORTS

- Sport linoleum is robust, long lasting and environmental friendly
- Available in many colours and designs
- Wear-resistant, fast and easy to install
- Suitable for professional sports or multi-purpose applications



盟 LINOLEUM





SURFACES REINFORCEMENT FOR DLW LINOLEUM

The surface of DLW Linoleum is always coated in a protective layer in the last production steps. These protective coatings ensure the linoleum is not damaged by moisture or abrasive dirt, and eases the cleaning process. Armstrong offers DLW linoleum with two choices of protective coatings – the trusted basic LPX Finish, and the high end PUR Eco System coating:



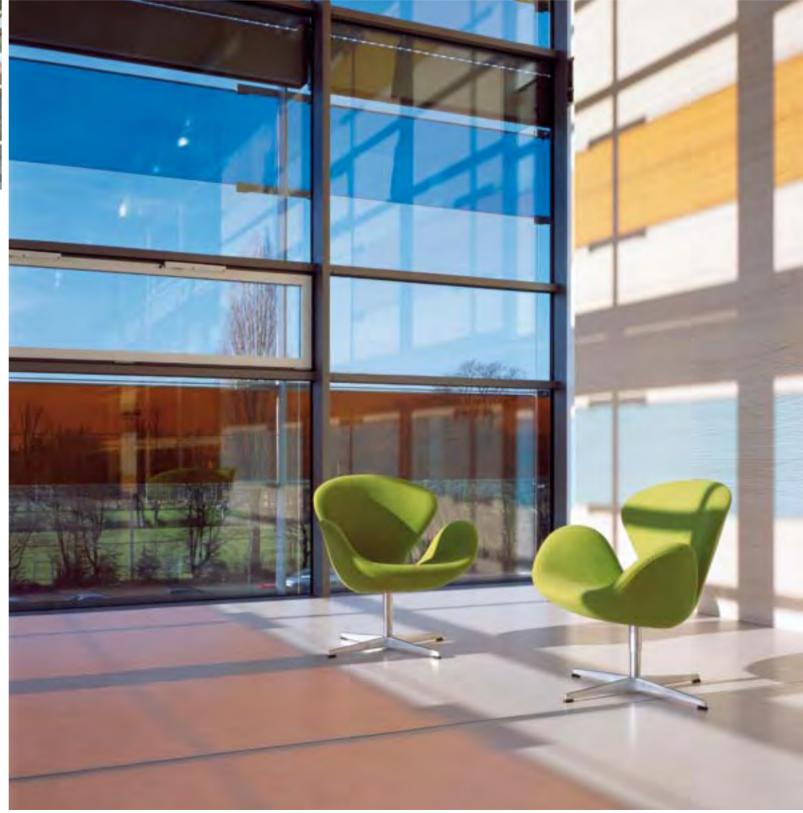
Linoleum LPX Finish is the standard reinforcement coating for DLW Linoleum and a cost effective alternative to PUR Eco System. This finish can cope without any additional treatment as long as the recommended cleaning and maintenance instructions are followed. In the case of any damage to the surface, it is extremely easy to restore the surface to its initial finish. This makes DLW Linoleum LPX Finish an ideal floor covering for schools.

For more information about LPX Finish, visit www.armstrong.eu



Linoleum PUR Eco System does not require any additional treatment and stripping intervals are no longer required, therefore making the running maintenance costs very low. Linoleum PUR Eco System is also resistant to marking and highly resistant to chemicals (e.g. hand disinfectants). Additionally, Prof. Manfred Hegger of the Technical University in Darmstadt, confirmed that due to the Linoleum PUR coating, and the lower need for harsh cleaning chemicals, the PUR Eco System actually improves the eco audit results of a building throughout its entire lifecycle. This makes Linoleum PUR the ideal floor covering for hospitals and nursing homes.

For more information about PUR Eco Systems, visit www.armstrong.eu



Lino Art LPX

Lino Art - a completely new concept! This elegant collection Lino Art, inspired by the timeless diversity of metallic surfaces, will appeal to architects and interior designers. Lino Art is ideal for a wide variety of applications in exclusive, prestigious environments where image and refined appeal are priorities. The Lino Art collection includes 18 articles in three fascinating design series. And in fact, some of the series uniquely incorporate real-metal flakes.









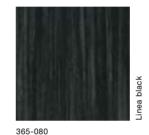






Material: 152-080 Object: University Göttingen day-care centre, Göttingen, D Architects: Despang Architekten, Hannover, D

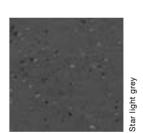












144-083

144-080

144-085

Technical Specifications
Specification according to EN 548

Specification according to EN 548						
CHARACTERISTICS	STANDARD	UNIT	RESULT			
Type of flooring	EN 548		Linoleum with LPX Finish			
Safety Criteria						
Flammability	EN 13501-1	class	C _{fl} - s1*			
Slip resistance	BGR 181	group	R 9			
General properties						
Sheet width / Sheet length	EN 426	cm/m	200 / 20 - 31			
Overall thickness	EN 428	mm	2.5			



Classification domestic - heavy





LINO ART LPX



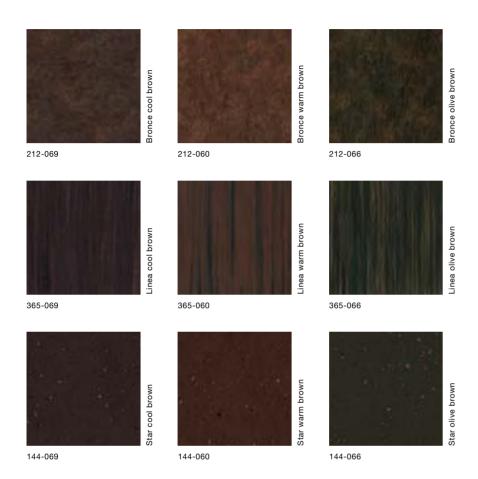
Classification industrial - general





^{*} adhered according to certificate, see www.armstrong.eu/my (Downloadcenter)
For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my

Lino Art LPX





Timeless styling! Its even, non-directional pattern has made Marmorette the most popular DLW Linoleum floor covering. And now there are even better reasons to opt for this product: the unique variety of colours offering 65 shades in 20 colour lines. A trio of contrasts, each featuring a light, middle and dark shade in every colour. As well as two perfectly coordinated ranges of grey, which are even available in four tonal steps. The qualities: sheet flooring 2.0 mm, 2.5 mm and 3.2 mm thick, with the middle tonal range being produced in all three thicknesses. Marmorette 2.0 is finished with PUR, Marmorette 2.5 with either PUR or LPX and Marmorette 3.2 with LPX surface finish. A multicolour weld rod, called Camouflage, is available for the entire range of articles.











Material: 121-052 Object: University Clinic, Frankfurt / Main, D Architects: Nickl & Partner, München, D

Technical Specifications Marmorette PUR 2.0 Marmorette PUR 2.5 Specification according to EN 548 CHARACTERISTICS RESULT RESULT Linoleum with PUR Eco System Linoleum with PUR Eco System Type of flooring surface protection surface protection Safety Criteria EN 13501-1 C, - s1* C, - s1* Flammability Slip resistance BGR 181 R 9 R 9 group General properties Sheet width / Sheet length EN 426 cm / m 200 / 20 - 31 200 / 20 - 31 EN 428

Classification according to EN 685

Marmorette PUR 2.0



Classification domestic - heavy Marmorette PUR 2.5



Classification domestic - heavy



Classification commercial - general



Classification commercial - very heavy



Classification industrial - moderate



Classification industrial - general







































Technical Specifications

CHARACTERISTICS

Type of flooring

Safety Criteria

Flammability

Slip resistance

General properties

Overall thickness

Sheet width / Sheet length

Classification domestic - heavy

Specification according to EN 548









STANDARD

EN 13501-1

BGR 181

EN 426

EN 428

EN 548





class

cm / m











Marmorette LPX 2.5

Linoleum with LPX Finish

RESULT

C, - s1*

200 / 20 - 31

R 9

2.5





Marmorette LPX 3.2

Linoleum with LPX Finish

RESULT

C, - s1*

200 / 20 - 31

R 9

3.2



^{*} adhered according to certificate, see www.armstrong.eu/mv (Downloadcenter)

For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my







2,5 mm



Colorette PUR

A perfect addition! Its low-key minimalist pattern makes Colorette a great alternative to the monochrome shades of Uni Walton. Light and dark have been combined in 7 pairs of colours which have been inspired by Nature. An attractive range of greys has now been added, offering five carefully blended graduations of brightness. The final highlights take the form of five brilliant shades. They are an ideal choice, whether used by themselves in combination with others: a fun look, and not just for the nursery! The qualities: sheet flooring 2.5 mm and 3.2 mm thick, each with PUR surface protection.



137-001

137-060

137-003

137-004



2,5 mm

2,5 mm

2,5 mm

2,5 mm







Material: 137-001 Object: Marien Grammar School, Essen-Werden, D Architects: Hahn Helten + Assoziierte, Aachen, D

Technical Specifications				
Specification according to EN 548			Colorette PUR 2.5	Colorette PUR 3.2
CHARACTERISTICS	STANDARD	UNIT	RESULT	RESULT
Type of flooring	EN 548		Linoleum with PUR Eco System surface protection	Linoleum with PUR Eco System surface protection
Type of flooring Safety Criteria	EN 548			*
*	EN 548 EN 13501-1	class		*
Safety Criteria		class	surface protection	surface protection
Safety Criteria Flammability	EN 13501-1		surface protection C _s - s1*	surface protection $C_{\rm fl}$ - s1*
Safety Criteria Flammability Slip resistance	EN 13501-1		surface protection C _s - s1*	surface protection $C_{\rm fl}$ - s1*
Safety Criteria Flammability Slip resistance General properties	EN 13501-1 BGR 181	group	surface protection C _s - s1* R 9	surface protection C ₈ - s1* R 9













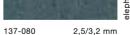
Classification industrial - general











2,5/3,2 mm

2,5/3,2 mm

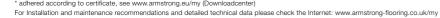
2,5/3,2 mm

137-058

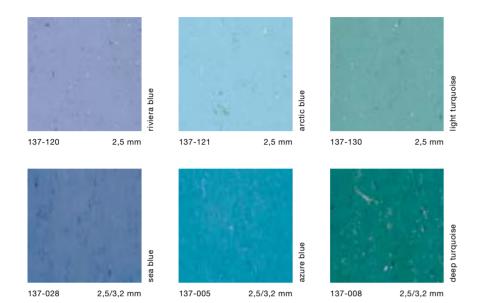
137-059

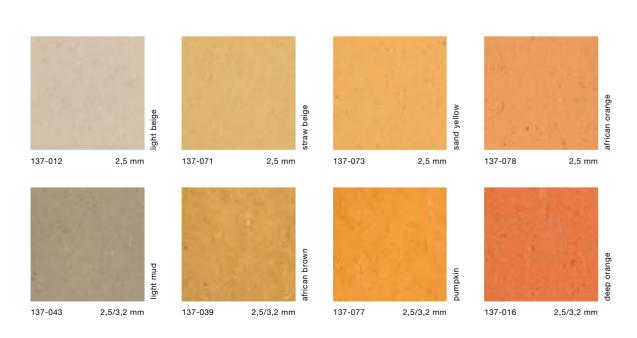






Colorette PUR







2,5/3,2 mm

Uni Walton PUR

No-compromise aesthetics! The classic floor covering in the DLW Linoleum portfolio: simple yet incredibly elegant. This linoleum floor covering for purists interprets the tried and tested shades of the classic palette with 20 unique monochrome shades. This selection is rounded off by a cold and a warm range of greys, beginning with an incomparably light shade of grey, which finds its counterpoint in a deep, luxurious black. The qualities: sheet flooring 2.5 mm and 3.2 mm thick, each with PUR surface protection.





2,5/3,2 mm



107-052

107-008

107-030

2,5/3,2 mm



2,5/3,2 mm

107-054

2,5/3,2 mm



Material: special colour blue Object: Administration Deutsche Rentenversicherung Bund, Berlin, D Architects: Theodor Brodführer Renovation: Prof. Bernhard Winking Architekten, Hamburg, D

Technical Specifications Uni Walton PUR 2.5 Uni Walton PUR 3.2 Specification according to EN 548 CHARACTERISTICS RESULT STANDARD RESULT Linoleum with PUR Eco System Linoleum with PUR Eco System Type of flooring EN 548 surface protection surface protection Safety Criteria EN 13501-1 C_{fl} - s1* C_{fl} - s1* Flammability Slip resistance BGR 181 group R 9 R 9 General properties Sheet width / Sheet length cm / m 200 / 20 - 31 200 / 20 - 31

Classification according to EN 685

Classification domestic - heavy



Overall thickness



EN 428









2.5

Classification industrial - general





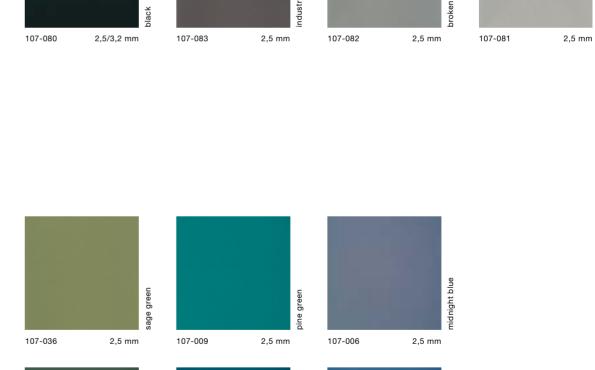
3.2









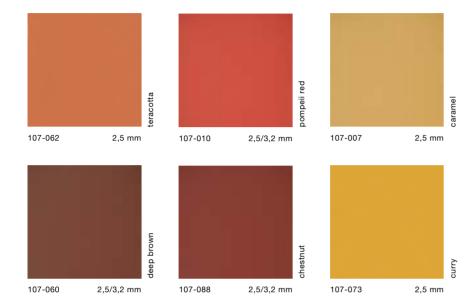


2,5 mm

107-022

2.5 mm

Uni Walton PUR





Granette PUR

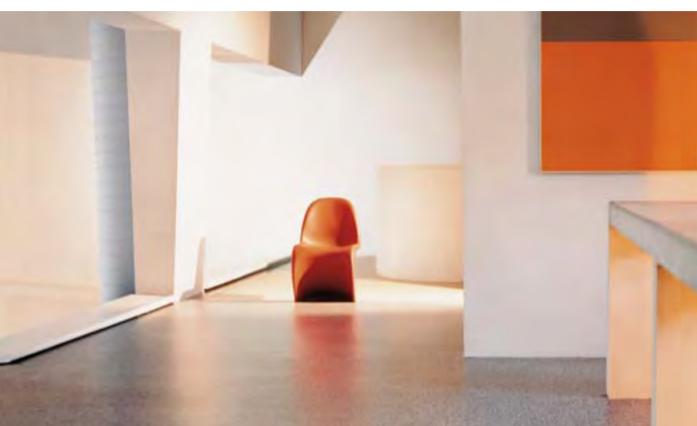
A great addition! The colour spectrum of the new Granette is even more innovative and extensive than before. 8 novel colour lines each with three tonal steps and a brand new fine grained pattern set the tone. Granette features the best shades nature has to offer: sand, earth, leaves, grass and water. The qualities: sheet flooring 2.5 mm thick with PUR surface protection. The Camouflage weld rod with an optimum invisible effect is also available.



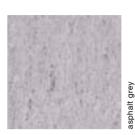








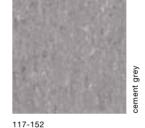
Material: 117-056

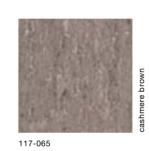




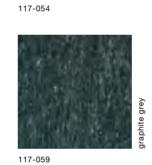




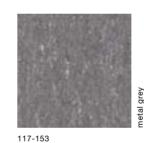




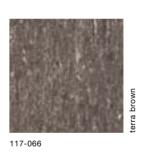




117-058



117-056



117-057



Technical Specifications
Specification according to FN 548

Eco System surface protection













Granette PUR 2.5





Classification domestic - heavy











Classification commercial - very heavy







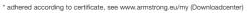












Granette PUR





Linodur LPX

When the going gets tough... Hardly anything can get the better of this linoleum floor covering with its directional pattern. The toughest quality in the DLW Linoleum portfolio stands out with nine bright and cheerful shades. Its robust design, even taking forklift trucks in its stride, makes it the ideal floor covering at industrial sites, as well as for buildings with heavy traffic. The qualities: sheet flooring 4 mm thick with LPX surface finish. The Camouflage weld rod with an optimum invisible effect is also available in all shades.











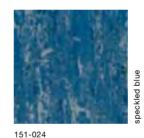
Material: 151-020



151-042

151-012

151-011



151-020

151-072

151-013

Technical Specifications

Technical Specifications Specification according to EN 548			Linodur LPX	
CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	EN 548		Linoleum with LPX Finish	
Safety Criteria				
Flammability	EN 13501-1	class	C _n - s1*	
Slip resistance	BGR 181	group	R 9	
General properties				
Sheet width / Sheet length	EN 426	cm / m	200 / 20 - 31	
Overall thickness	EN 428	mm	4.0	
Classification according to EN 685				



Classification domestic - heavy



















^{*} adhered according to certificate, see www.armstrong.eu/my (Downloadcenter)
For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my

Marmorette AcousticPlus LPX

Sound absorbing at its best! Armstrong has developed a DLW linoleum flooring that ensures a sound reduction of 17 dB. High-quality sound absorbing flooring presents a cost-effective supplement to soundinsulating concrete slabs and floating screed.

The Marmorette AcousticPlus with 4.0 mm thickness consists of a 2.5 mm Marmorette with a jute backing laminated onto a 1.5 mm PU foam backing.



Material: 2121-073 Object: Institute for Social Sciences, Berlin Architects: Abelmann Vielain Pock Architekten, Berlin

Technical Specifications Specification according to EN 548

Marmorette AcousticPlus LPX

opcompanion according to 2.10 to			
CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 548		Linoleum on a foam backing and LPX Finish
Safety Criteria			
Flammability	EN 13501-1	class	C ₁ - s1*
Slip resistance	BGR 181	group	R 9
Impact sound reduction	ISO 140-8	dB	17
General properties			
Sheet width / Sheet length	EN 426	cm / m	200 / 20 - 31
Overall thickness	EN 428	mm	4.0
Classification according to EN 6	85		



Classification domestic - heavy







Classification commercial - heavy







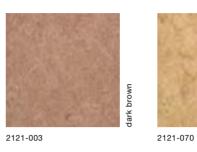














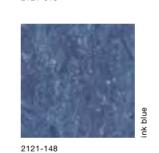


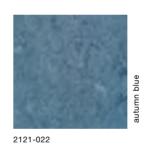








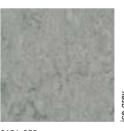












2121-053

Marmorette Acoustic LPX

Double the benefits! The Marmorette lies on a layer of cork which is used for sound reduction. This unbeatable combination makes DLW Linoleum more comfortable due to the heat insulating features of the corkment. The results are enhanced walking comfort and warmth underfoot. Korkment is manufactured from natural raw materials. The production method is similar to that of linoleum, but, apart from the binding agent. Korkment is made entirely of granulated cork. Korkment is characterised by its lasting elasticity and flexibilty. It has very favourable resistance to wheeled traffic and good resilience. Above all it is resistant to ageing. This means that its initial degree of impact sound improvement is assured for life. It should be noted that when installing product on Korkment the floor covering must be at least as thick as the Korkment underlay.











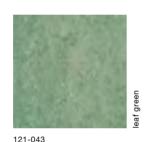


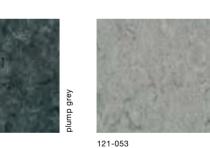


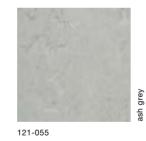














Technical Specifications Specification according to			Marmorette Acoustic LPX EN 687	Korkment 2.0 EN 12455 Acoustic underlayment	Korkment 3.2 EN 12455 Acoustic underlayment
CHARACTERISTICS	STANDARD	UNIT	RESULT		
Type of flooring	EN 548		Linoleum with cork backing with LPX Finish	-	-
Safety Criteria					
Flammability	EN 13501-1	class	C _{ff} - s1*	=	-
Slip resistance	BGR 181	group	R 9	=	-
Impact sound reduction	ISO 140-8	dB	app. 14	app. 14	app. 15
General properties					
Sheet width / Sheet length	EN 426	cm / m	200 / 20 - 31	200	200
Overall thickness	EN 428	mm	4.0	2.0	3.2
Classification according to E	N 685				



121-059



































Marmorette LCH LPX / Linodur LCH LPX

Well thought out! The anti-static version of DLW Linoleum is the result of extensive Armstrong research. Especially designed for rooms where the maximum electrical resistance to earth of 1 x 10 cube 8 ohms is fulfilled by the installation of conductive linoleum LCH. The qualities: Marmorette LCH as sheet material in 2.5 and 3.2 mm width and Linodur LCH in 4 mm width. both with LPX Finish. Linoleum LCH also fulfils the requirements for local transfer resistance in accordance with VDE 0100.

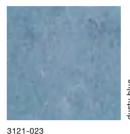








Marmorette LCH LPX





Linodur LCH LPX



3121-055 3151-020

Technical Specifications Specification according to EN	548		Marmorette LCH LPX 2.5	Marmorette LCH LPX 3.2	Linodur LCH LPX 4.0
CHARACTERISTICS	STANDARD	UNIT	RESULT	RESULT	RESULT
Type of flooring	EN 548		Linoleum with LPX Finish	Linoleum with LPX Finish	Linoleum with LPX Finish
Safety Criteria					
Flammability	EN 13501-1	class	C _n - s1*	C ₁₁ - s1*	C _{fi} - s1*
Slip resistance	BGR 181	group	R 9	R 9	R 9
General properties					
Sheet width / Sheet length	EN 426	cm / m	200 / 20 - 31	200	200
Overall thickness	EN 428	mm	2.5	3.2	4.0
Vertical resistance	EN 1081	Ohm	≤ 1 x 10 ⁸	≤ 1 x 10 ⁸	≤ 1 x 10 ⁸
Classification assembles to	EN COE				









Classification industrial - heavy































¹⁶⁵⁸⁻CPD-1003 1658-CPD-1001

^{*} adhered according to certificate, see www.armstrong.eu/my (Downloadcenter)

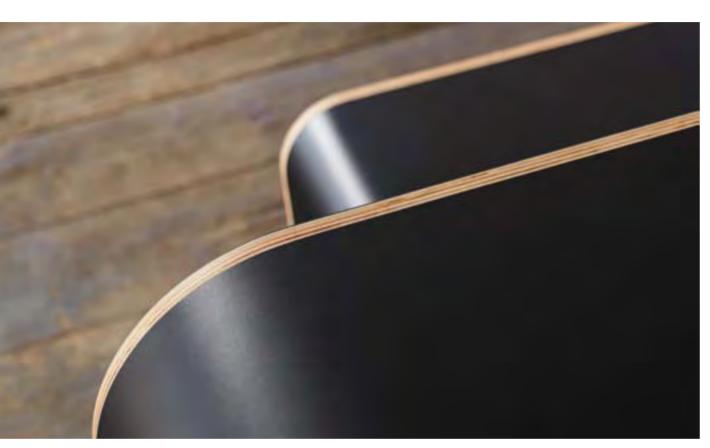
For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my

^{*} adhered according to certificate, see www.armstrong.eu/mv (Downloadcenter) For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my

Form

Form – freedom of scope for furniture! DLW Linoleum Form has developed solely for application on surfaces of furniture. The main advantage is the warm and congenial haptics and the low noise effect of natural Linoleum. Laminating of diminutive radii and even curved and rounded furniture pieces is possible due to a backing material of an ecological drapery of cotton which by nature is ductile.





Material: 6106-080

6106-081	nickel grey	6106-043	neutral beige	6106-075	linoleum brown
6106-083	industrial grey	6106-064	leather brown	6106-035	מפיים מיים
6106-080	black	6106-063	dark brown	6106-013	classical red

Technical Specifications	
Specification on the basis of EN 548	

•				
CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of floo ring	EN 548		Furniture Linoleum	
Backing			Cotton fabric	
Sheet width / Sheet length	EN 426	cm / m	200 / 20 - 31	
Overall thickness	EN 428	mm	2.0	
Flexibility	EN 435	mm	Ø ≥ 35	

Form 2.0

Suitable for the application on furniture surfaces, doors and all customary carrier materials like MDF, chip records and plywood. Resistance to fat and cooking oil and short term resistance against diluted acids.

Installation details

Maximum pressure temperatur 60°C







₩ VINYL





Medintone PUR

Durability and improved maintenance! Medintone's homogeneous construction brings together outstanding durability and resilience with an attractively textured design. The Medintone colour system now includes 42 graduations of colour - with three tones per individual colour – to select from. The five-tone chip structure with its low-contrast variations, gives an impression of depth and elegance.







Material: 885-330

Technical Specifications Specification according to EN 649

Medintone PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		Synthetic floor covering with PUR Eco System surface protection
Safety Criteria			
Flammability	EN 13501-1	class	B _n - s1*
Slip resistance	BGR 181	group	R 9
General properties			
Sheet width / Sheet length	EN 426	cm / m	183 / 16 - 25
Overall thickness	EN 428	mm	2.0
Wear group	EN 649		P
Classification according to EN	N 685		







Classification domestic - heavy Classification commercial - very heavy



















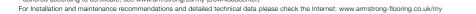












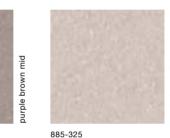


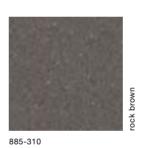




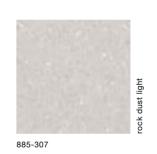


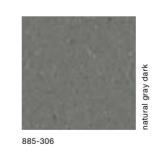
885-327 885-326



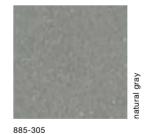


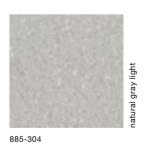




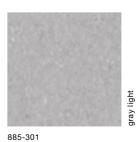


885-303













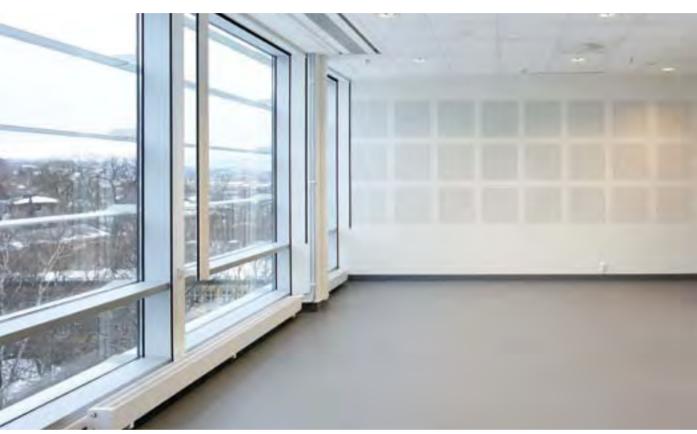


Favorite PUR

Striking and easy-care! Favorite is the first choice whenever an expressive and easy to care for alternative to plain surfaces is desired. Its non-directional, characteristic chip design blends in with the background colour creating a harmonious, minimalist effect. The system includes 36 beautiful colour variations between two and four tones per colour - to select from. The new Favorite pastel colours can be attractively combined with Pastell Conductive flooring.







 $\textbf{Object:} \ \, \textbf{St.} \ \, \textbf{Olav} \ \, \textbf{Hospital, Trondheim, N} \ \, \textbf{Architects:} \ \, \textbf{NSW} \ \, \textbf{Arkitekter og Planleggere AS, Oslo, N}$

Technical Specifications Specification according to EN 649/13553

Favorite PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection
Safety Criteria			
Flammability	EN 13501-1	class	B ₁ - s1
Slip resistance	BGR 181	group	R 9
General properties			
Sheet width / Sheet length	EN 426	cm/m	183 / 16 - 25
Overall thickness	EN 428	mm	2.0
Wear group	EN 649		Р
Classification according to EN	685		







Classification domestic - heavy

Classification commercial - very heavy

Classification industrial - heavy













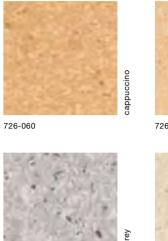






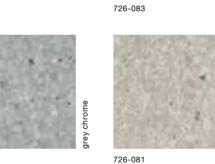


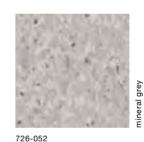






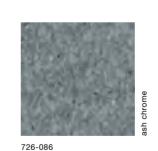
726-040





726-051

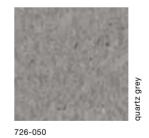


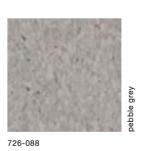


726-089

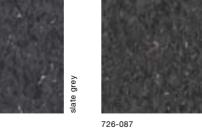
726-084

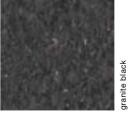
726-092











Favorite PUR







Expressive, striking contrasts! Contour is a homogeneous floor covering with a distinctive, eye-catching chip design. A selection of finely-graduated shades of grey as backdrop to a high-contrast speckled pattern in 16 powerful accent colours. Striking contrasts bring the floor to life, giving it a fascinating architectural feel.







Material: 921-075

Technical Specifications Specification according to EN 649/13553

Contour PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection
Safety Criteria			
Flammability	EN 13501-1	class	B ₁ - s1
Slip resistance	BGR 181	group	R 9
General properties			
Sheet width / Sheet length	EN 426	cm/m	183 / 16 - 25
Overall thickness	EN 428	mm	2.0
Wear group	EN 649		Р
Classification according to EN	685		







Classification domestic - heavy

Classification commercial - very heavy

Classification industrial - heavy

















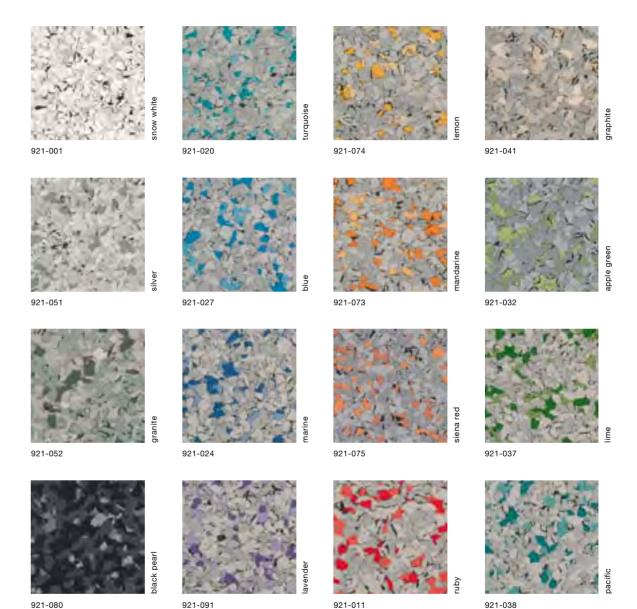












Royal PUR

The well-loved genuine classic! Royal's, non-stain marbled pattern is rich in contrasts, giving this homogeneous floor covering timeless elegance in its most attractive form. This high-performance floor covering is now available in 18 tones - ranging from classic grey and beige, through colourful, lively colours, all the way through to deep, dark elegant tones. Royal is also available in conductive version.







Object: St. Olav Hospital, Trondheim, N **Architects:** NSW Arkitekter og Planleggere AS, Oslo, N

Technical Specifications Specification according to EN 649/13553

Royal PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection
Safety Criteria			
Flammability	EN 13501-1	class	B _n - s1
Slip resistance	BGR 181	group	R 9
General properties			
Sheet width / Sheet length	EN 426	cm / m	183 / 16 - 25
Overall thickness	EN 428	mm	2.0
Wear group	EN 649		Р
Classification according to EN 68	5		







Classification domestic - heavy

Classification commercial - very heavy

Classification industrial - heavy























Attractive and cost-effective! Cenit homogeneous floor covering features a pattern that perfectly conceals everyday wear and tear. You can select from 14 graduations of colour, ranging from neutral tones to strong accent colours.



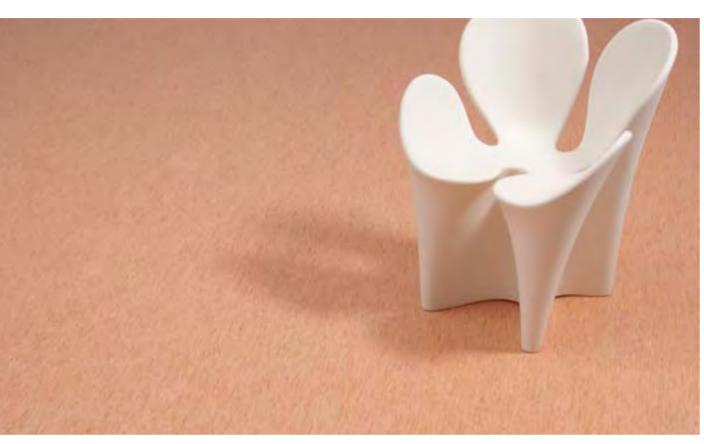
411-012

411-064

411-083

411-050





Material: 411-073

Technical Specifications Specification according to EN 649/13553

Royal PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection
Safety Criteria			
Flammability	EN 13501-1	class	B ₁ - s1
Slip resistance	BGR 181	group	R 9
General properties			
Sheet width / Sheet length	EN 426	cm/m	183 / 16 - 25
Overall thickness	EN 428	mm	2.0
Wear group	EN 649		Р
Classification according to EN	685		







Classification domestic - heavy

Classification commercial - very heavy

Classification industrial - heavy





























411-051

411-052



Economical and hard-wearing! Solid is an ideal floor covering for installations that require maximum resistance to wear and soiling. Solid is available in 16 attractive colours, from grey and beige tones through to blue, green and red.







Material: 521-023 Object: Day Nursery Berriosuso, E Architects: Javier Barcos Berruezo, Manuel Enríquez Jiménez, Berriozar/Navarra, E

Technical Specifications Specification according to EN 649/13553

Royal PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection
Safety Criteria			
Flammability	EN 13501-1	class	B ₁ - s1
Slip resistance	BGR 181	group	R 9
General properties			
Sheet width / Sheet length	EN 426	cm/m	183 / 16 - 25
Overall thickness	EN 428	mm	2.0
Wear group	EN 649		Р
Classification according to EN	685		







Classification domestic - heavy

Classification commercial - very heavy

Classification industrial - heavy

















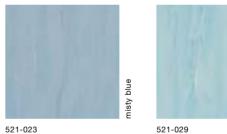














521-034



521-052



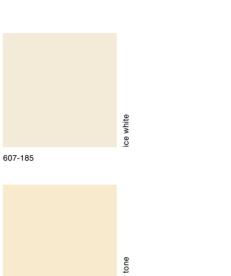






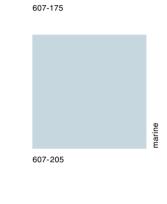
Wallflex is a homogeneous, plain vinyl wallcovering which is able to satisfy the most specific hygienic requirements. The five pastel tones provide a smooth wallcovering and coordinate with the floor products in the Armstrong's wetroom range or with our other vinyl floor coverings.





607-085

607-035



Material: 607-205

Wallflex PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring			synthetic wall covering with PUR surface protection
Safety Criteria			
Flammability	EN 13501-1	class	D - s2 d0
General properties			
Sheet width / Sheet length	EN 426	cm	150 / 20
Overall thickness	EN 428	mm	1.25











Pastell Conductive

The perfect high-performance complement! As a conductive floor covering, Pastell Conductive's pure, bright colours combine perfectly with the Favorite floor covering with its fine chip pattern. Pastell Conductive is ideal for use in the healthcare sector for combinations of conductive and non-conductive areas. It is now available in 16 graduations of colour.







Material: 2815-021 Object: Radium Hospital, Oslo, N Architekten: Henning Larsen Architects, Copenhagen, DK

Technical Specifications Specification according to EN 649

Pastell Conductive

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering homogeneous with conductive backing
Safety Criteria			
Flammability	EN 13501-1	class	B ₁ - s1
Slip resistance	BGR 181	group	R 9
General properties			
Sheet width / Sheet length	EN 426	cm / m	183 / 16 - 25
Tiles: dimensions	EN 427	cm	60.8 x 60.8*
Overall thickness	EN 428	mm	app. 2.20
Wear group	EN 649		P
Vertical resistance	EN 1081	Ohm	$\leq 1 \times 10^{6}$
Static electrical charge - system test	EN 61340-4-5	kV	≤ 0.1
Classification according to EN 685			







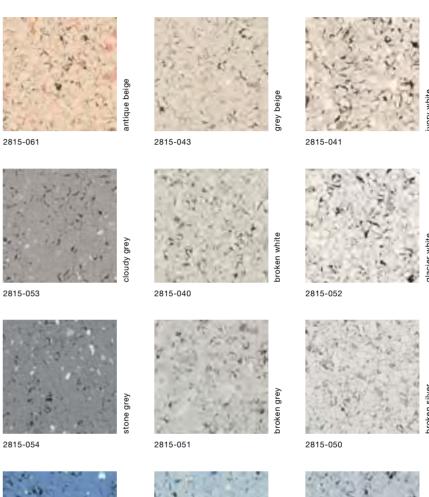
Classification domestic - heavy

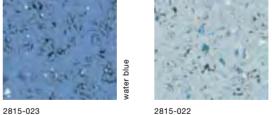
Classification commercial - very heavy

Classification industrial - heavy







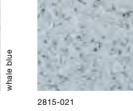


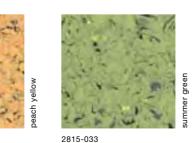
2815-071

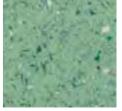
2815-070











2815-032

THE FLOOR 81

Royal Conductive/Royal ESD

Royal Conductive

For special conductivity applications! The Royal Conductive homogeneous floor covering is especially suitable for areas in the healthcare and industrial sectors which call for increased conductivity. Also available in six attractive colours, it can be ideally combined with non-conductive Royal floor covering.

Royal ESD

Timeless performance for exacting applications! The Royal ESD PUR floor covering was developed especially for applications with special conductivity requirements, for instance in microelectronics manufacturing. Royal ESD PUR, with its non-directional, non-stain, marbled pattern available in 6 attractive colours - delivers tried and tested quality.











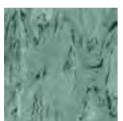
2424-/1424-023



2424-/1424-055



2424-/1424-045



2424-/1424-035



2424-/1424-059

Royal Conductive

Technical Specifications	
Specification according to FN 649	

CHARACTERISTICS	STANDARD	UNIT	RESULT	RESULT
Type of flooring	EN 649		synthetic floor covering homogeneous with conductive backing	synthetic floor covering homogeneous with conductive backing
Safety Criteria				
Flammability	EN 13501-1	class	B _{fl} - s1	B ₁ - s1
Slip resistance	BGR 181	group	R 10*	R 10*
General properties				
Sheet width / Sheet length	EN 426	cm / m	183 / 16 - 25	183 / 16 - 25
Tiles: dimensions	EN 427	cm	60.8 x 60.8	60.8 x 60.8
Overall thickness	EN 428	mm	app. 2.20	app. 2.20
Wear group	EN 649		P	P
Vertical resistance	EN 1081	Ohm	≤ 1 x 10 ⁶	$\leq 1 \times 10^7$
Electrical insulation to ground	VDE 0100	kOhm	-	≥ 50
Static electrical charge-system test	EN 61340-4-5	kV	≤ 0.1	≤ 0.1
Classification according to EN 6	85			

















Royal ESD

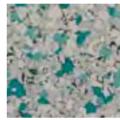
Contour Conductive

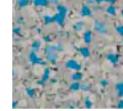
Conductivity applications! Specially developed for use in the healthcare sector, Contour Conductive is ideal for applications calling for greater conductivity. Available in four colours, it can be ideally combined with non-conductive Contour floor covering.



2920-038











2920-073 2920-027

Technical Specifications Specification according to EN 649

Contour Conductive

CHARACTERISTICS	OTANDADD	LIAUT	DECLUT
CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering homogeneous with conductive backing
Safety Criteria			
Flammability	EN 13501-1	class	B _f - s1
Slip resistance	BGR 181	group	R 10*
General properties			
Sheet width / Sheet length	EN 426	cm / m	183 / 16 - 25
Tiles: dimensions	EN 427	cm	60.8 x 60.8**
Overall thickness	EN 428	mm	app. 2.20
Wear group	EN 649		Р
Vertical resistance	EN 1081	Ohm	≤ 1 x 10 ⁶
Static electrical charge - system test	EN 61340-4-5	kV	≤ 0.1
Classification according to EN 685			









Classification domestic - heavy Classification commercial - very heavy

Classification industrial - heavy



















For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my

^{**} Available for false floors on request

For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my

Timberline PUR

The timeless beauty of wood! Timberline with its strikingly authentic wood-effect designs is an ideal floor covering wherever natural styling and ease of maintenance are priorities. With an even more extensive selection of designs and warm, welcoming colours - ranging from traditional lighter tones, like beech and maple, all the way through to contemporary darker shades such as oak or wenge.



Material: 331-028

Technical Specifications Specification according to EN 649

Timberline PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection
Safety Criteria			
Flammability	EN 13501-1	class	B ₁ - s1
Slip resistance	BGR 181	group	R 9
General properties			
Sheet width / Sheet length	EN 426	cm/m	200 / 16 - 25
Overall thickness	EN 428	mm	2.0
Thickness of wear layer	EN 429	mm	0.55
Wear group	EN 649		Т
Classification according to EN	685		









Classification industrial - general





Classification domestic - heavy



















New collection in summer 2011

331-043

331-044



331-045

331-042



₩ LUXURY VINYL





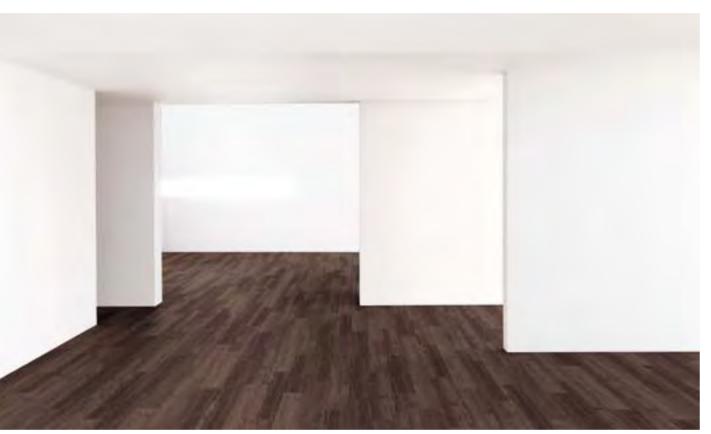


Material: Scala 100 Wood, 20005-161 Object: Dental Practice Aachen, D Architects: Sabine Mescherowsky Innenarchitektin, Krefeld, D

20140-152 121,92 x 20,32 cm

Scala 100 PUR

Scala 100 is the premium collection in the LVT product range with its 1.0 mm wear layer and PUR Eco system. It is developed and produced in Germany. New designs, exclusive textures and innovative formats open up a new world of opportunities for modern floor design. Strikingly authentic wood designs, extraordinary features/structures and distinctive uni-coloured flooring - available in a range of shapes and formats. A new addition to the Scala 100 range is the large-scale **MaxPlank** with its 1.80 m length and special **DesignCut** formats. With DesignCut, Armstrong takes designer tiles to a new compositional level: instead of the usual right angles, DesignCut employs polygons, curved and radial shapes to create fascinating, ornamental patterns that lend every room a unique appearance. With a choice of five different base cuts, numerous Scala designs and clever installation, the possibilities are virtually endless.



Material: 20230-153 imprint wood natural brown

Technical Specifications Specification according to EN 64	19		Scala 100 PUR	Scala 100 Uni Core PUR
CHARACTERISTICS	STANDARD	UNIT	RESULT	RESULT
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection with beveled edges	synthetic floor covering with PUR Eco System surface protection with beveled edges
Safety Criteria				
Flammability	EN 13501-1	class	B ₁ - s1	B _n - s1
Slip resistance	BGR 181	group	R 9 (Raw) / R 10 (Art, Teak, Sawn)	R 10
General properties				
Tiles: dimensions	EN 427	cm	different sizes	45.72 x 45.75
Overall thickness	EN 428	mm	2.5	2.5
Thickness of wear layer	EN 429	mm	1.0	1.0
Total weight	EN 430	g / m²	3850	3850
Wear group	EN 649		Т	Р
Classification according to Ef	N 685			
			Clm_iiii)	







Classification domestic - heavy

Classification commercial - very heavy

Classification industrial - heavy





Wood

20140-160 121,92 x 20,32 cm



20140-143 121,92 x 20,32 cm

20140-181 121,92 x 20,32 cm

Wood

Wood





20080-117 91,44 x 15,24 cm



20116-145 91,44 x 15,24 cm

20116-160 91,44 x 15,24 cm



20065-160 91,44 x 15,24 cm



20065-149 91,44 x 15,24 cm





20103-164 121,92 x 20,32 cm

MaxPlank 182,88 x 30,48 cm

20041-145 91,44 x 15,24 cm



20041-144 91,44 x 15,24 cm

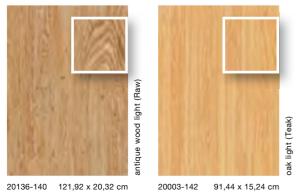


20015-160 91,44 x 15,24 cm











20012-166 91,44 x 15,24 cm

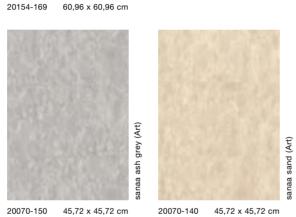
20110-159 91,44 x 60,96 cm

20110-154 91,44 x 60,96 cm

Structure



20070-153 45,72 x 45,72 cm



Feature 20091-180 45,72 x 45,72 cm 20153-159 45,72 x 45,72 cm 20153-154 45,72 x 45,72 cm

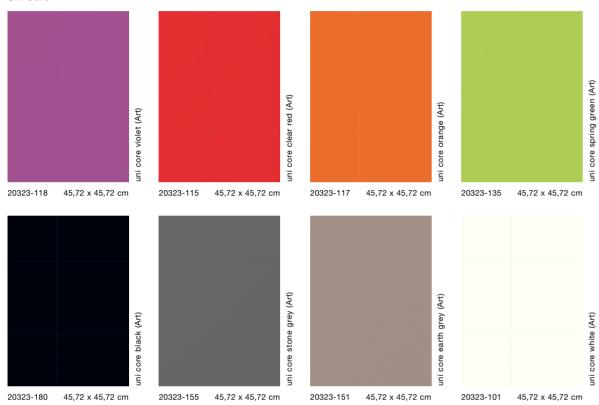
20110-146 91,44 x 60,96 cm

20110-144 91,44 x 60,96 cm

20070-180 45,72 x 45,72 cm

Scala 100 PUR

Uni Core



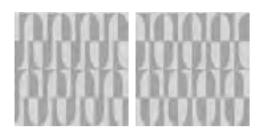
For appearance reasons higher maintenance is required. Custom colours possible starting at a minimum of 1000 $\mbox{m}^2.$

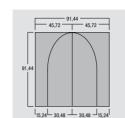


THE FLOOR 94

Scala 100 - DesignCut installation examples

Five extraordinary base cuts - an infinite number of combinations: Art Deco, Uni Composition, Transversal Plank, Wave and Rotation are the names of these fascinating new tile formats, which can be used to create magically unique floor designs.

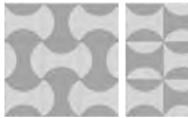


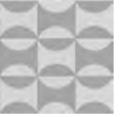


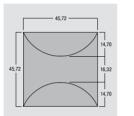
Cut 1: Art Deco

Available in Metal Oxyde, Ribbon Flow, Sanaa, Steel Plate, Zen, Uni Core; all wood patterns in standard 1-yard (91.44 cm) length

Base format: 1 square yard (91.44 x 91.44 cm) Surface coverage per carton: 4.18 m²





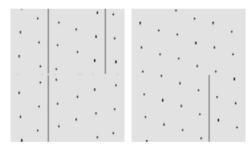


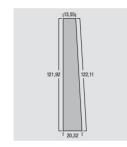
Cut 2: Uni Composition

Available in Uni Core design

Base format: 1 square yard (45.72 x 45.72 cm) Units per carton: 19

Surface coverage per carton: 3.97 m²





Cut 3: Transversal Plank

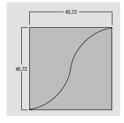
Available in all wood patterns in standard 4-foot (121.92 cm) length: Imprint Wood, Rustic Wood, Antique Coast, Mountain Oak, Ash, Antique Wood

Base format: 121.92 x 20.32 / 13.55 cm Units per carton: 20

Surface coverage per carton: 4.13 m²



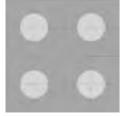




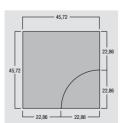
Cut 4: Wave

Available in Metal Oxyde, Ribbon Flow, Sanaa, Steel Plate, Zen, Uni Core patterns; all wood patterns in standard 1-yard (91.44 cm) length

Base format: 1 square yard (45.72 x 45.72 cm) Units per carton: 19 Surface coverage per carton: 3.97 m²





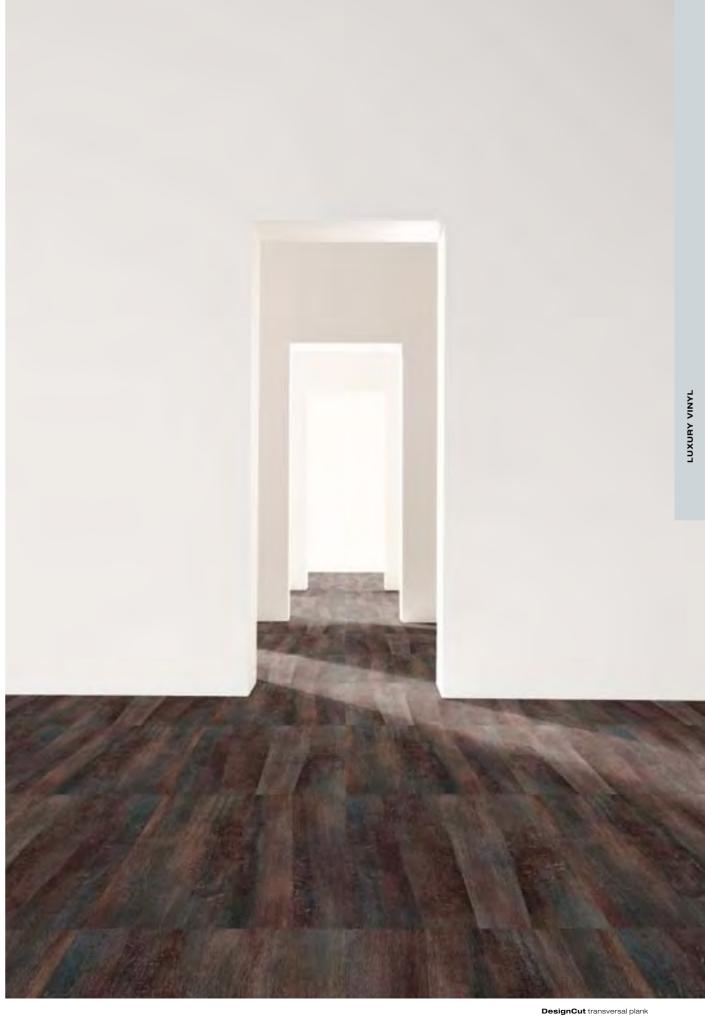


Cut 5: Rotation

Available in Metal Oxyde, Ribbon Flow, Sanaa, Steel Plate, Zen, Uni Core; all wood patterns in standard 1-yard (91.44 cm) length

Base format: 1 square yard (45.72 x 45.72 cm) Units per carton: 19 Surface coverage per carton: 3.97 m²

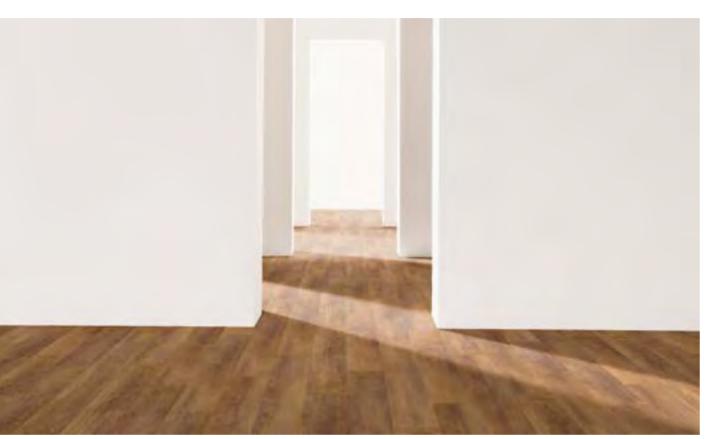
Customised colour selection possible with as little as 50 square meters made to order!



THE FLOOR 96

Scala 55 PUR

With its 0.55 mm wear layer, Scala 55 offers the ideal surface for high-traffic areas. It is developed and produced in Germany. In the new Scala 55 collection, the wood tones offer a wide range of different wood types and colours. The Structure and Stone collections feature a whole new range of wave and textile designs, new interpretations of classic patterns and realistic stone structures.



Material: 20103-164 mountain oak brown

Technical Specifications Specification according to EN 649

Scala 55 PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection with beveled edges	
Safety Criteria				
Flammability	EN 13501-1	class	B ₁ - s1	
Slip resistance	BGR 181	group	R 9 (Raw) / R 10 (Art, Teak, Sawn)	
General properties				
Tiles: dimensions	EN 427	cm	different sizes	
Overall thickness	EN 428	mm	2.5	
Thickness of wear layer	EN 429	mm	0.55	
Total weight	EN 430	g / m²	4000	
Wear group	EN 649		Т	
Classification according to E	N 685			







Classification domestic - heavy

Classification commercial - heavy

Classification industrial - general

For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my









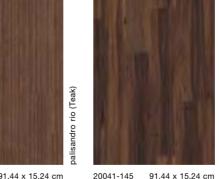


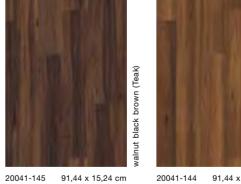


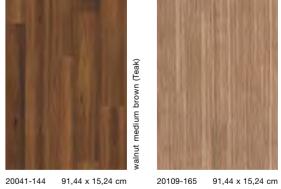




















20080-119 91,44 x 15,24 cm 20080-117 91,44 x 15,24 cm

Wood Stone 20015-185 91,44 x 15,24 cm 20085-181 91,44 x 15,24 cm 20017-150 45,72 x 45,72 cm 20003-166 91,44 x 15,24 cm 20003-160 91,44 x 15,24 cm 20076-161 91,44 x 15,24 cm 20073-149 91,44 x 15,24 cm 20111-156 45,72 x 45,72 cm 20111-153 45,72 x 45,72 cm 20111-145 45,72 x 45,72 cm 20111-150 45,72 x 45,72 cm 20065-160 91,44 x 15,24 cm 20065-149 91,44 x 15,24 cm 20003-142 91,44 x 15,24 cm 20037-141 91,44 x 15,24 cm 20070-180 45,72 x 45,72 cm 20070-153 45,72 x 45,72 cm 20070-150 45,72 x 45,72 cm 20070-140 45,72 x 45,72 cm 20080-160 91,44 x 15,24 cm 20015-140 91,44 x 15,24 cm 20012-166 91,44 x 15,24 cm 20076-140 91,44 x 15,24 cm 20047-165 45,72 x 45,72 cm 20047-156 45,72 x 45,72 cm 20047-147 45,72 x 45,72 cm

Scala 55 PUR

Structure



20155-144 60,96 x 60,96 cm

20155-186 60,96 x 60,96 cm

Scala Wall

Scala Wall, which is available in all designs featured in the Scala 100 and Scala 55 collections starting at a minimum of 500 m², turns floor covering into wall decoration. While the two are visually indistinguishable, the wall covering is significantly thinner, lighter and more flexible than the flooring. Scala Wall can therefore be easily installed on virtually any wall surface. Vertical designs now also available - for expansive, room-filling creations.



Material: 20091-180 steel plate black

Specification according to EN 235

Scala Wall

CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	EN 235		synthetic wall covering	
Safety Criteria				
Flammability	EN 13501-1	class	D s2 d0*	
General properties				
Tiles: dimensions	EN 426	cm x cm	91.44 x 60.96	
Overall thickness	EN 428	mm	1.10	
Thickness of wear layer	EN 429	mm	0.30	
Total weight	EN 430	g / m²	1650	
Residual indentation	EN 433	mm	< 0.1	





* Note: adhered according to certificate, see www.armstrong.eu/my

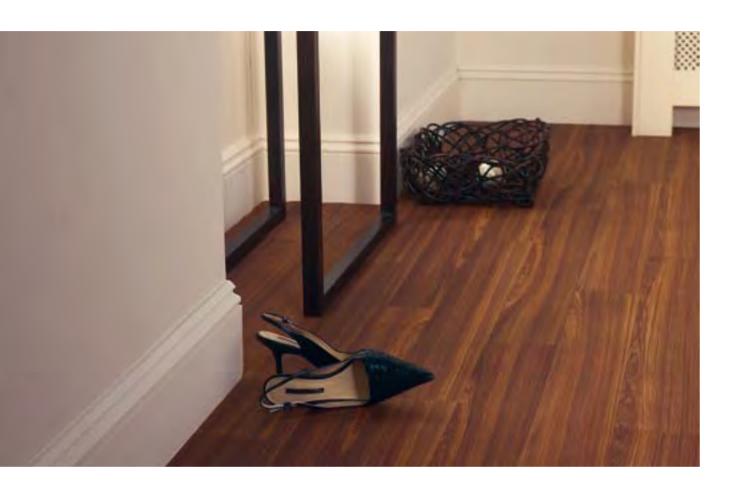
The flammability rating is certified for plasterboard and to each A1/A2 underground classification.

For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my

20155-181 60,96 x 60,96 cm

Scala Click Comfort PUR

With the introduction of Scala Click Comfort, Armstrong has added a new installation option to its range: the high-quality Scala design planks with a wear layer of 0.55 mm are easily laid thanks to their tongue and groove system. This eliminates the need for adhesives, saving both time and money. The lack of adhesives also means that even large areas are quickly covered and immediately usable. Armstrong has thus combined the renowned Scala properties of durability, underfoot comfort and easy maintenance with quick and simple installation.





20103-164 mountain oak brown

27105-154 rustic pine warm









27107-165 mountain pine dark brown

27107-162 mountain pine warm brown

27105-158 rustic pine brown

27105-150 rustic pine grey











20230-182 imprint wood dark brown

20230-153 imprint wood natural brown

20215-145 rustic wood medium brown

20113-153 mountain oak khaki

Technical Specifications Specification according to the EN 14085

Scala	Click	Comfort	PUK

STRUCTURE	STANDARD	UNIT	RESULT
Type of flooring	EN 649		floor panel with Vinyl wear layer and PUR Eco System surface protection
Thickness of wear layer	EN 429	mm	0.55
Total thickness	EN 428	mm	9.4
Total weight	EN 430	g / m²	8600
Tiles: dimensions	EN 427	cm	120.5 x 21
Safety Criteria			
Flammability	EN 13501-1	class	C ₁₁ - s1
Slip resistance	BGR 181	group	R 9 RAW-embossing / R10 SAWN-embossing
Performance			
Wear group vinyl wear layer	EN 649		T



















Scala Easy PUR

Scala Easy is a self-laying flooring in top design! The collection is composed from natural looking wood designs, supported by plank format and beveled edges. Scala Easy is a high-end quality product with a 1 mm wear layer. The installation is easy (without adhesive, only fixing) and the tiles can be also removed fast and easy. Therefore the self-laying tile is ideal for raised access floors and for temporarily installations, as in retail or at fairs. Scala Easy is covered with the proven PUR Eco System for an easy cleaning. Scala Easy combines the advantages of a highly fashionable luxury floor for modern interieurs with a quick installation thus you save time and money.



Material: 20003-142 Object: Gama BB Center, Prag, CZ

Technical Specifications Specification according to EN 649

Scala Easy PUR

· · · · · · · · · · · · · · · · · · ·			
CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection with beveled edges
Safety Criteria			
Flammability	EN 13501-1	class	B _{ff} - s1
Slip resistance	BGR 181	group	R 10
General properties			
Tiles: dimensions	EN 427	cm	different sizes
Overall thickness	EN 428	mm	3.2
Thickness of wear layer	EN 429	mm	1.0
Wear group	EN 649		Т
Classification according to F	N 685		







Classification domestic - heavy

Classification commercial - very heavy

For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my

Scala Easy Wood PUR (60.96 cm x 60.96 cm, 91.44 cm x 15.24 cm)

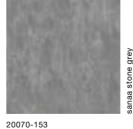


Scala Easy Neutrals PUR (60.96 cm x 60.96 cm)





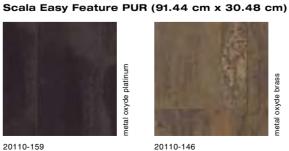
walnut black brown

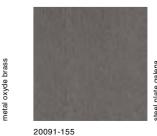


walnut medium brown



teak red brown







cherry natural

20091-152

Scala 30 PUR

The design tile Scala 30 creats a warm and comfortable atmosphere with a big range of natural wood and stone designs. Scala 30 is the ideal choice for use in homes and in low-traffic areas of public facilities. The surface of Scala 30 is covered with the proven PUR Eco System, which allows the flooring to be easily cleaned and maintained. The floor tile is highly durable, as well as resistant to staining and most chemicals.



Scala 30 Wood PUR



Technical Specifications Specification according to EN 649

Scala 30 PUR

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 649		synthetic floor covering with PUR Eco System surface protection
Safety Criteria			
Flammability	EN 13501-1	class	B ₁ - s1
General properties			
Tiles: dimensions	EN 427	cm	different sizes
Overall thickness	EN 428	mm	2.0
Thickness of wear layer	EN 429	mm	0.30
Wear group	EN 649		Т
Classification according to E	EN 685		





Classification domestic - heavy

Klasse gewerblich - mäßig



















For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my



Scala 30 PUR

Scala 30 Stone PUR (60.96 cm x 45.72 cm)







₩ FIBREBONDED







Material: Strong, 951-088, Object: WGV Insurance Company, Stuttgart, D Architects: ippolito fleitz group, Stuttgart, D

This classic fibrebonded floor covering provides exceptional value for heavy use areas.

It is available in fifty colours with antistatic and conductive versions.



Object: International School, Bonn, D **Architects:** RKW Rhode Kellermann Wawrowsky, Düsseldorf, D

Technical Specifications Specification according to EN 1470

Strong 951 / 956

CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	ISO 2424		Fibrebonded carpet	
Type of surface / Colouring	ISO 2424		mottled	
Width / Dimensions	ISO 3018	cm	200 broadloom	
Fibre composition of use surface	ISO 2424	%	100 PA 6	
Total thickness	ISO 1765	mm	6.5	•
Total fibre weight of use surface	Manufacturer statement	g/m²	750	•
Mass per unit of the use surface	EN 984	g/m²	660	•
Classification				
Additional classification	RAL	class	highly robust	
Additional Characteristics				
Vertical resistance	ISO 10965	Ohm	Strong 956: ≤ 1 x 108	
Impact sound reduction	ISO 140-8	dB	app. 22	
Flammability	EN 13501-1		B _f - s1*	
Classification according to EN 685				





Classification commercial - heavy



Luxury classification LC 1















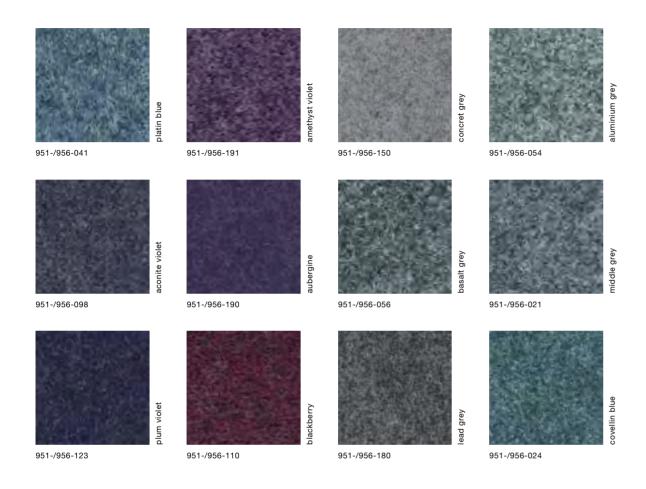












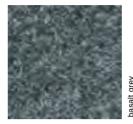


Strong Modul 961/966

Strong Modul is the tile version of Strong available in ten colours that closely match the sheet product. It is also available in antistatic and conductive versions.

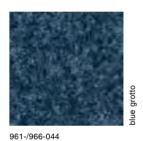


Object: Office Building Z-zwo in Stuttgart **Architects:** Eike Becker_Architekten, Berlin



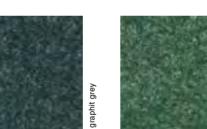
961-/966-021







961-/966-088



961-/966-085

961-/966-037

961-/966-024

961-/966-063

961-/966-041

Technical Specifications Specification according to EN 1470

Strong Modul 961 / 966

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	ISO 2424		Fibrebonded carpet
Type of surface / Colouring	ISO 2424		mottled
Width / Dimensions	ISO 3018	(Box 20 pieces)	50 x 50
Fibre composition of use surface	ISO 2424	%	70 PA / 30 PES
Total thickness	ISO 1765	mm	7.5
Total fibre weight of use surface	Manufacturer statement	g/m²	610
Mass per unit of the use surface	EN 984	g/m²	550
Additional Characteristics			
Vertical resistance	ISO 10965	Ohm	Strong 966: ≤ 1 x 109 conductive
Impact sound reduction	ISO 140-8	dB	19
Flammability	EN 13501-1		C _n - s1*
Classification according to EN 685			









Classification commercial - heavy

Luxury classification LC 1





Classification domestic - heavy























Strong Spot 916

Coarse fibrebonded floor covering with attractive random pattern available in fifteen colours.



Object: NDR Radio Studios, Hamburg, D **Architects:** Schweger Assoziierte Architekten, Hamburg, D

Technical Specifications Specification according to EN 1470

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	ISO 2424		Fibrebonded carpet
Type of surface / Colouring	ISO 2424		mottled
Width / Dimensions	ISO 3018	cm	200 broadloom
Fibre composition of use surface	ISO 2424	%	100 PA 6
Total thickness	ISO 1765	mm	6.5
Total fibre weight of use surface	Manufacturer statement	g/m²	750
Mass per unit of the use surface	EN 984	g/m²	660
Classification			
Additional classification	RAL	class	highly robust
Additional Characteristics			
Vertical resistance	ISO 10965	Ohm	$\leq 1 \times 10^8$
Impact sound reduction	ISO 140-8	dB	app. 22

Strong Spot 916

B_{fl} - s1*

Luxury classification LC 1

Flammability Classification according to EN 685

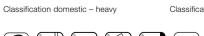








Classification commercial - heavy







EN 13501-1









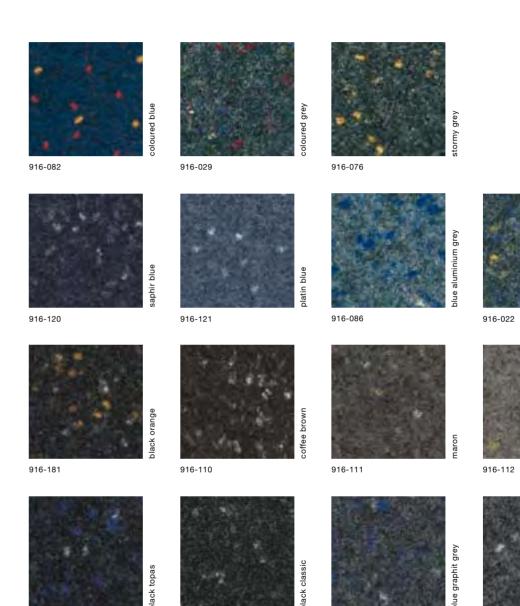








adhered according to certificate, see www.armstrong.eu/my (Downloadcenter) For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my



916-182

916-089

916-180

916-190

Strong Compact 926

Fibrebonded floor covering with a rustic surface structure in twenty-four attractive colours.



Object: Central Law Library of the University, Hamburg, D **Architects:** me di um Architekten, Hamburg, D

Technical Specifications Specification according to EN 1470

Strong Compact 926

CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	ISO 2424		Fibrebonded carpet	
Type of surface / Colouring	ISO 2424		mottled	
Width / Dimensions	ISO 3018	cm	200 broadloom	
Fibre composition of use surface	ISO 2424	%	100 PA 6	
Total thickness	ISO 1765	mm	6.5	
Total fibre weight of use surface	Manufacturer statement	g/m²	700	
Mass per unit of the use surface	EN 984	g/m²	620	
Classification				
Additional classification	RAL	class	highly robust	
Additional Characteristics				
Vertical resistance	ISO 10965	Ohm	≤ 1 x 10 ⁸	
Impact sound reduction	ISO 140-8	dB	app. 22	
Flammability	EN 13501-1		C _n - s1*	
Classification according to EN 685				













Luxury classification LC 1















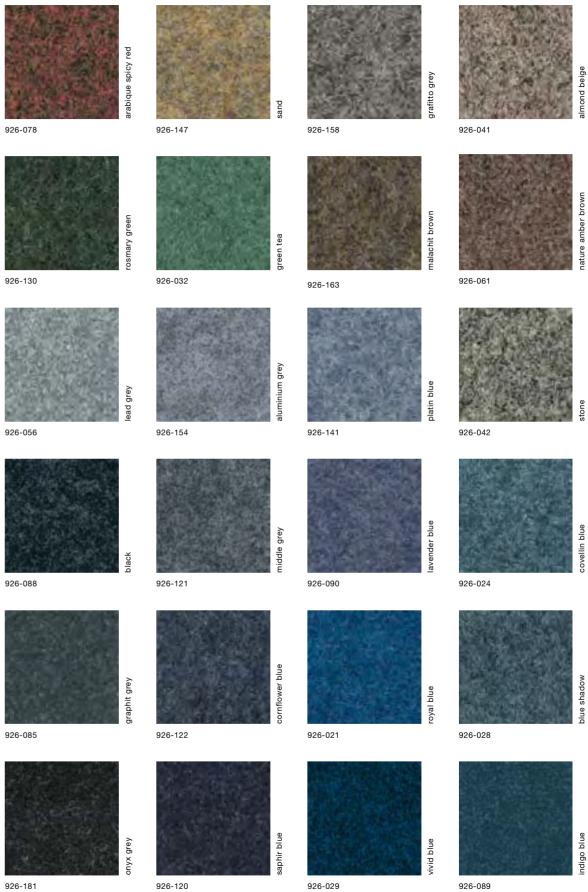






dorix 闭



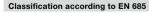


Object: NDR Radio Studios, Hamburg, D **Architects:** Schweger Assoziierte Architekten, Hamburg, D

Technical Specifications
Specification according to EN 1470

M 745 S-L

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	ISO 2424		Fibrebonded carpet
Type of surface / Colouring	ISO 2424		mottled
Width / Dimensions	ISO 3018	cm	200 broadloom
Fibre composition of use surface	ISO 2424	%	100 PA 6
Total thickness	ISO 1765	mm	6.5
Total fibre weight of use surface	Manufacturer statement	g/m²	650
Mass per unit of the use surface	EN 984	g/m²	580
Classification			
Additional classification	RAL	class	highly robust
Additional Characteristics			
Vertical resistance	ISO 10965	Ohm	$\leq 1 \times 10^{8}$
Impact sound reduction	ISO 140-8	dB	app. 22
Flammability	EN 13501-1		C ₁₁ - s1*
01 17 11 11 1 511 005			













Luxury classification LC 1





Classification domestic - heavy







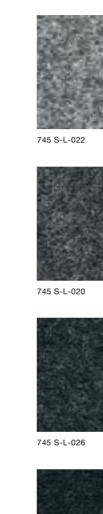




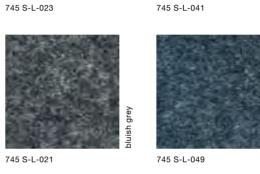






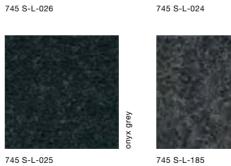


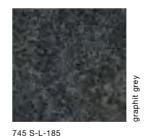


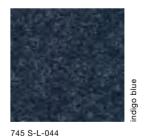




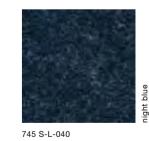
745 S-L-046







745 S-L-050



745 S-L-045

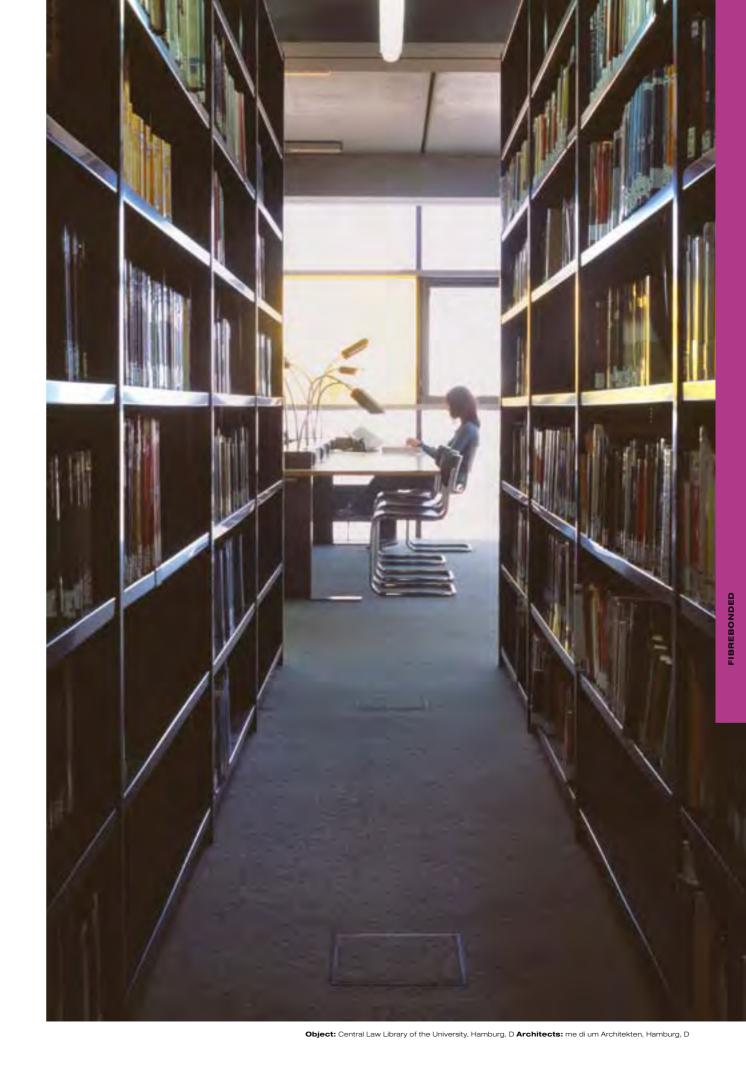






M 745 S-L





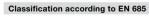


Object: Student Hall of Residence Saalepark Hof, D Architects: Bez + Kock Architekten BDA, Stuttgart, D

Technical Specifications Specification according to EN 1470

M 745 L

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	ISO 2424		Fibrebonded carpet
Type of surface / Colouring	ISO 2424		mottled
Width / Dimensions	ISO 3018	cm	200 broadloom
Fibre composition of use surface	ISO 2424	%	100 PA 6
Total thickness	ISO 1765	mm	6.0
Total fibre weight of use surface	Manufacturer statement	g/m ²	550
Mass per unit of the use surface	EN 984	g/m²	450
Additional Characteristics			
Vertical resistance	ISO 10965	Ohm	$\leq 1 \times 10^8$
Impact sound reduction	ISO 140-8	dB	app. 21
Flammability	EN 13501-1		C ₁ - s1*



Classification domestic - heavy











Luxury classification LC 1



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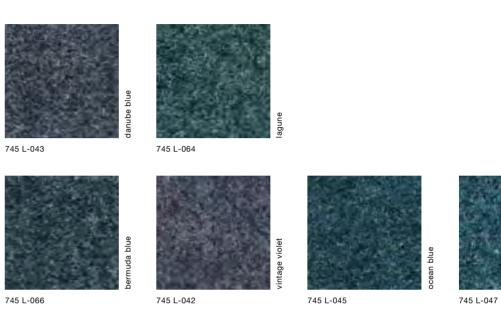


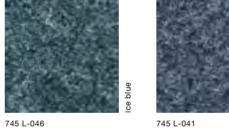


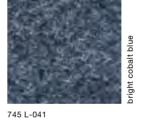


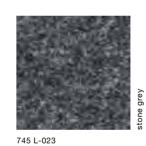


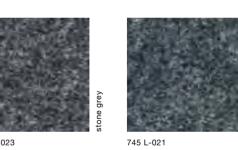


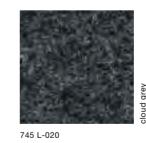


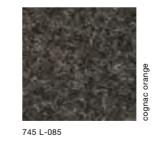
















M 733 L

This single layer, mottled, coarse fibrebonded floor covering has fifteen standard colours and fulfills all performance demands.



Object: International School, Bonn, D **Architects:** RKW Rhode Kellermann Wawrowsky, Düsseldorf, D

Technical Specifications Specification according to EN 1470

M 733 L

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	ISO 2424		Fibrebonded carpet
Type of surface / Colouring	ISO 2424		mottled
Width / Dimensions	ISO 3018	cm	200 broadloom
Fibre composition of use surface	ISO 2424	%	60 PP / 40 PA 6
Total thickness	ISO 1765	mm	5.0
Total fibre weight of use surface	Manufacturer statement	g/m ²	800
Mass per unit of the use surface	EN 984	g/m²	1000
Additional Characteristics			
Vertical resistance	ISO 10965	Ohm	≤ 1 x 10 ⁸
Impact sound reduction	ISO 140-8	dB	app. 20
Flammability	EN 13501-1		C ₁ - s1*
Classification according to EN 685			





Classification domestic - heavy Classification commercial - heavy



Luxury classification LC 1





















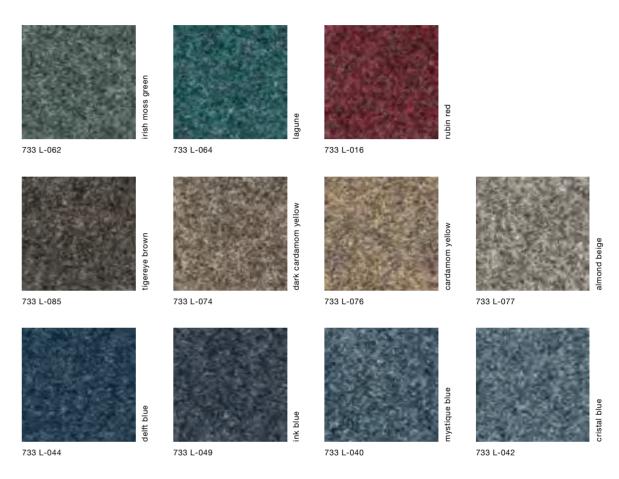












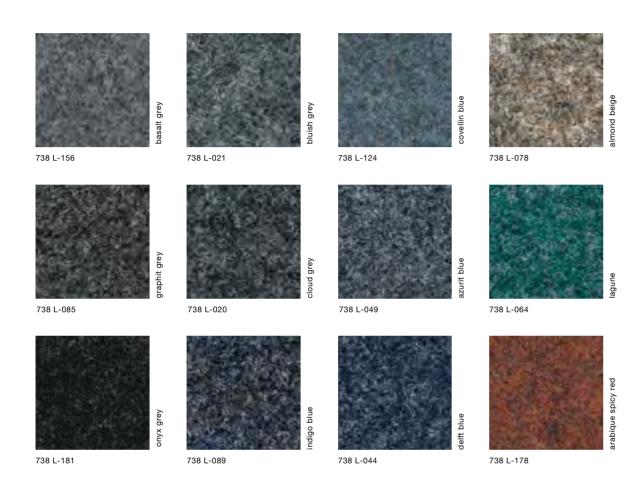
733 L-021

733 L-025

733 L-020

733 L-022

wear layer for areas of extremely heavy use.



Technical Specifications Specification according to EN 1470

M 738 L

CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	ISO 2424		Fibrebonded carpet	
Type of surface / Colouring	ISO 2424		mottled	
Width / Dimensions	ISO 3018	cm	200 broadloom	
Fibre composition of use surface	ISO 2424	%	65 PP / 35 PA 6	
Total thickness	ISO 1765	mm	5.0	
Total fibre weight of use surface	Manufacturer statement	g/m²	400	
Mass per unit of the use surface	EN 984	g/m²	330	
Additional Characteristics				
Vertical resistance	ISO 10965	Ohm	≤ 1 x 10 ⁸	
Impact sound reduction	ISO 140-8	dB	арр. 20	
Flammability	EN 13501-1		C _n - s1*	

Classification according to EN 685











Luxury classification LC 1





Classification domestic - heavy









* adhered according to certificate, see www.armstrong.eu/my (Downloadcenter) For Installation and maintenance recommendations and detailed technical data please check the Internet: www.armstrong-flooring.co.uk/my

Technical Specifications Specification according to EN 1470

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	ISO 2424		Fibrebonded carpet
Width / Dimensions		cm	200 broadloom
Fibre composition of use surface	ISO 2424	%	90 PP / 10 PES
Total thickness	ISO 1765	mm	3.5
Total fibre weight of use surface	Manufacturer statement	g/m²	550
Mass per unit of the use surface	ISO 8543	g/m²	740
Additional Characteristics			
Vertical resistance	ISO 10965	Ohm	-
Impact sound reduction	ISO 140-8	dB	арр. 16
Flammability	EN 13501-1		D ₁ - s1
Classification according to EN 695			

420-010

420-043



420-025

M 420

Single layer, mottled fibrebonded floor covering

with a fine fibre structure in eight muted colours.



420-021





M 420

Classification commercial - general



Luxury classification LC 1





Classification domestic - heavy











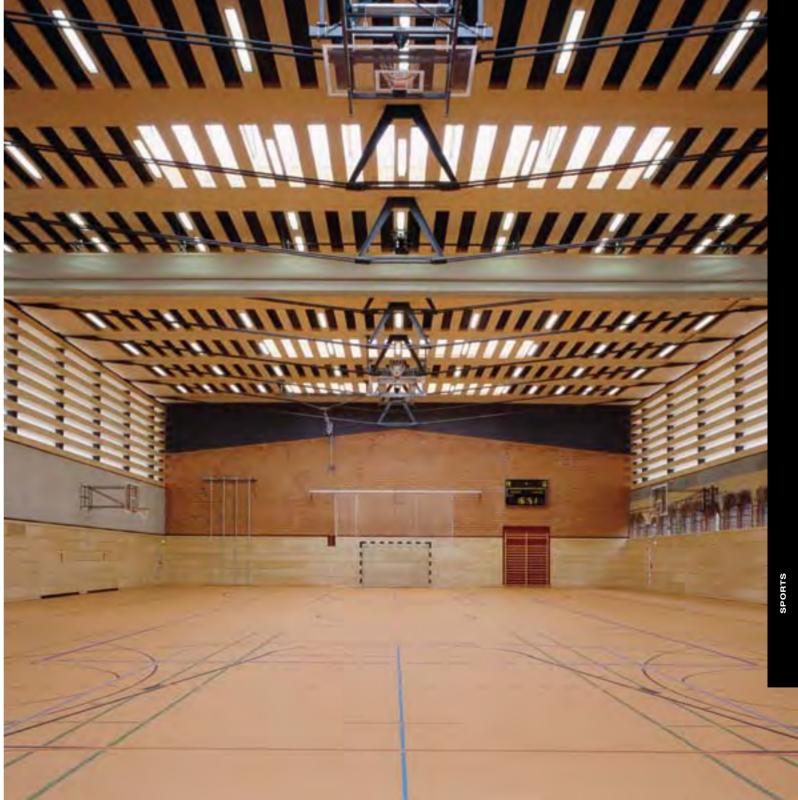




翌 SPORTS







Linodur Sport

Linodur Sport is the well-loved genuine classic of the sports flooring with more than 10 million m2 installed in sports and multi-purpose halls all over the world. Linodur Sport satisfies with it's classic design and it's consistent contrast in the structure of all colours. Produced especially for heavy-wear areas this design offers considerable aesthetic advantages, for instance, scuff marks caused by sports shoes are less visible. The matching Camouflage weld rod with an optimum invisible effect inserts perfectly in the flooring. Linodur Sport is permanently antistatic and bacteriostatic. This linoleum is produced as an one layer homogeneous flooring with 4.0 mm thickness and fulfills the RAL quality class E••••. The Camouflage weld rod with an optimum invisible effect is available in all shades.



Material: 6151-011 Objekt: Sports Hall Bardoschool, Fulda, D

Technical Specifications Specification according to EN 14904 / DIN V 18032-2 / EN 548

Linodur Sport

CHARACTERISTICS	STANDARD	UNIT	RESULT		
Type of flooring	EN 548		Linoleum		
Calendered floor covering			homogeneous		
Safety criteria					
Flammability	EN 13501-1	class	C _{fl} - s1*		
Dynamic coefficient of friction	DIN V 18032-2	0,4-0,6 μ	fulfilled*		
General properties					
Sheet width / Sheet length	EN 426	cm / m	200 / app. 28		
Overall thickness	EN 428	mm	4.0		
Thickness of wear layer	EN 429	mm	app. 3.4		
Antibacterial activity	JIS Z 2801	DLW Linoleum ha	DLW Linoleum has an antibacterial activity		

DLW Linodur Sport is suitable for indoor usage according to AgBB-guidelines (Version 2008)

Application Areas EN 14904 / DIN V 18032-2 Classification according to EN 685

suitable for sports areas and multi-sports use

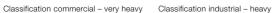


















































6151-081







6151-051

^{*} according to certificate, see www.dlwsports.com

For Installation and maintenance recommendations and detailed technical data please check the Internet: www.dlwsports.com

Linovation Sport

The innovative Linovation Sport convinces with its unique calm chip design which appears unicoloured in bigger areas. Therefore it serves the demand for monochrome sports flooring. Linovation Sports contains of nine clear and effectual colours which is a bigger range than ever. The attractive colours are ideal for sports. They also invite for multi-coloured creations. The especially high cork content provides excellent elasticity. In addition, its surface has good grip and is hard-wearing. Linovation Sport is an one layer homogeneous flooring with 4.0 mm thickness and fulfills the new low emissions value.



 $\textbf{Material:} \ 6145-015 \ \textbf{Object:} \ \textbf{Weinbrenner School, Karlsruhe Architects:} \ \textbf{Chestnutt_Niess, Berlin}$

Technical Specifications Specification according to EN 14904 / DIN V 18032-2 / EN 548

CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	EN 548		Linoleum	
Calendered floor covering			homogeneous	
Safety criteria				
Flammability	EN 13501-1	class	C _{fl} - s1*	
Dynamic coefficient of friction	DIN V 18032-2	0,4-0,6 μ	fulfilled*	
General properties				
Sheet width / Sheet length	EN 426	cm/m	200 / app. 28	
Overall thickness	EN 428	mm	4.0	
Thickness of wear layer	EN 429	mm	app. 3.4	
Antibacterial activity	JIS Z 2801	DLW Linoleum has an antibacterial activity		

DLW Linovation Sport is suitable for indoor usage according to AgBB-guidelines (Version 2008)

Application Areas EN 14904 / DIN V 18032-2

suitable for sports areas and multi-sports use Classification according to EN 685

































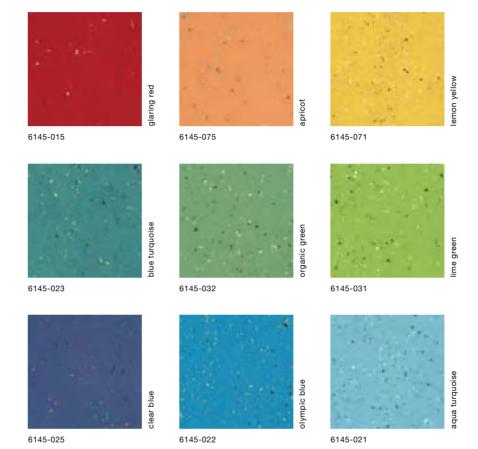












^{*} according to certificate, see www.dlwsports.com
For Installation and maintenance recommendations and detailed technical data please check the Internet: www.dlwsports.com

Linopro Sport PUR

Linopro Sport Armstrong DLW's latest development, has an innovative surface treatment: a PUR lacquer coating is sprayed on the surface of this sports linoleum and thereafter hardened under UV light. This thin layer makes the Linoleum very insensitive to dirt and marks and in addition makes cleaning easier and cost effective. It also provides an extremely wear-resistant flooring surface with excellent resistance to chemicals. The Camouflage weld rod with an optimum invisible effect is available in all shades.



Material: 6157-072 Object: Sports Hall W. Victorien, Draguignan, F

Technical Specifications

Specification according to EN 14904 / DIN V 18032-2 / EN 548

CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	EN 548		Linoleum with PUR Eco System surface protection	
Calendered floor covering			homogeneous	
Safety criteria				
Flammability	EN 13501-1	class	D _{fl} - s2*	
Dynamic coefficient of friction	DIN V 18032-2	0,4-0,6 μ	fulfilled*	
General properties				
Sheet width / Sheet length	EN 426	cm/m	200 / app. 28	
Overall thickness	EN 428	mm	4.0	
Thickness of wear layer	EN 429	mm	app. 3.4	
Antibacterial activity	JIS Z 2801	DLW Linoleum ha	DLW Linoleum has an antibacterial activity	

DLW Linopro Sport is suitable for indoor usage according to AgBB-guidelines (Version 2008)

Application Areas EN 14904 / DIN V 18032-2 suitable for sports areas and multi-sports use

Classification according to EN 685











Linopro Sport PUR

























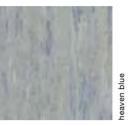






For Installation and maintenance recommendations and detailed technical data please check the Internet: www.dlwsports.com

6157-072





Linea Sport

Linea Sport creates a pleasant, harmonious atmosphere with a generous dose of sportiness. The brown tone is modelled on maple wood and highlights the natural appearance of DLW linoleum. Linea Sport offers the same, tried-and-tested usage characteristics as Linodur Sport as well as its single-layer homogeneous design and 4 mm thickness. The flooring is antistatic and meets all the requirements of the relevant sports standards DIN 18032 and EN 14904.



Material: 180-51 Object: Hartharena, Hartha, D General Planner: Bauconzept Planungsgesellschaft mbH

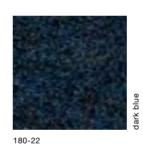
More and more, sports halls are required to function as exhibition halls or locations which are used for public or social

events. Floor Protection P is the ideal solution for such situations. Our hall floor protection cover consists of a high-quality

needle punch floor covering coated with an anti-slip polyolefine backing. It is possible to cover only parts of the hall floor

as required. They can easily stored away, requiring minimal storage space and can be replaced if necessary. This makes

our Floor Protection P an easy and cost effective way to protect your sports floor.



CHARACTERISTICS

Fiberbonded carpet

Rücken

Backing

Total thickness

Flammability

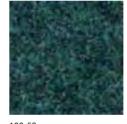
Standard dimensions

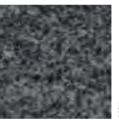
Fiber composition of use surface

Classification according to EN 685

Classification commercial - general

Floor Protection P





Floor Protection P

RESULT

100% PP

Polyolefin

7,5 mm B_e-s1

3.800 g/m²

EN 13501-1

Floor Protection P

100 x 200 cm

180-52

180-51



6365-040

Technical Specifications

Specification according to EN 14904 / DIN V 18032-2 / EN 548

Linea Sport

CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	EN 548		Linoleum	
Calendered floor covering			homogeneous	
Safety criteria				
Flammability	EN 13501-1	class	C _{fl} - s1*	
Dynamic coefficient of friction	DIN V 18032-2	0,4-0,6 μ	fulfilled*	
General properties				
Sheet width / Sheet length	EN 426	cm / m	200 / app. 28	
Overall thickness	EN 428	mm	4.0	
Thickness of wear layer	EN 429	mm	app. 3.4	
Antibacterial activity	JIS Z 2801	DLW Linoleum ha	s an antibacterial activity	
Application Areas EN 14904 / DIN	V 18032-2	suitable for sports	areas and multi-sports use	
Classification according to EN 68	5			



































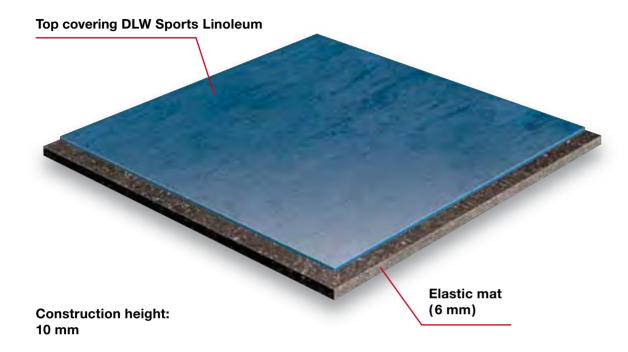




For Installation and maintenance recommendations and detailed technical data please check the Internet; www.dlwsports.com

Linopol System

Linopol System - point-elastic flooring! This system is using DLW sport linoleum in conjunction with the special elastic mat enhances the performance of the sports floor. This system is ideal for gymnastic rooms in fitness centers or rehabilitation facilities and for multipurpose rooms in kindergartens where the function safety properties of a point-elastic flooring system are most important.



Technical Specifications Specification according to EN 14904 / DIN V 18032-2 / EN 548 **Linopol Sport** Point elastic sport floor system

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 548		Sportlinoleum: Linovation / Linodur
Sheet width / Sheet length	EN 426	cm/m	200 / app. 28
Overall thickness	EN 428	mm	4.0











** Resistance to fat and mineral oil and short-term resistance against diluted acids.

* according to certificate, see www.dlwsports.com

Substructure Elastic mat PUR-bonded layer containing PUR-foam-granulates				
Overall thickness	EN 428	mm	6.0	
Sheet width / Sheet length	EN 426	cm/m	125 / 10/20	
Total System Linopol Sport				
Flammability	EN 13501-1	class	D _{fl} - s2*	
Overall thickness	EN 428	mm	10	
Force reduction	EN 14904	%	26	

Application Areas

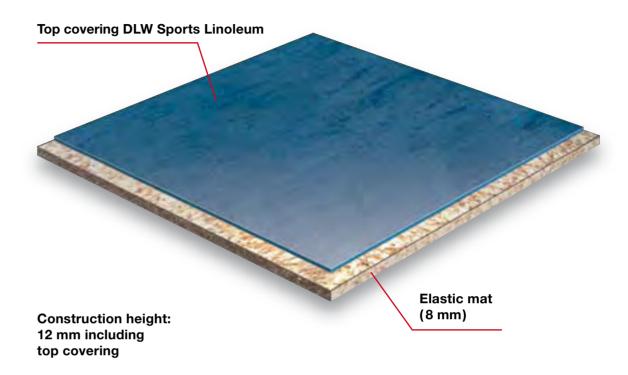






Linogym System

Linogym System - point-elastic flooring! Linogym brings together the best of Sport Linoleum and Gymflex elastic matting. With a 33% impact absorption rate, Linogym provides outstanding cushioning qualities and is thus ideally suited for active environments in kinder-gardens and in sport, fitness and gymnastic facilities. Surfaces as well as elastic matting made of cork, wood and latex composites were awarded the "Blue Angel" environmental certificate.



Technical Specifications

Specification according to EN 14904 / DIN V 18032-2 / EN 548

Linogym Sport Point elastic sport floor system

CHARACTERISTICS	STANDARD	UNIT	RESULT	
Type of flooring	EN 548		Sportlinoleum: Linovation / Linodur	
Sheet width / Sheet length	EN 426	cm / m	200 / app. 28	
Overall thickness	EN 428	mm	4.0	











Substructure Gymflex PUR-bo	nded layer, consisting of	wood, cork and latex gran	nulates	
Overall thickness	EN 428	mm	8,0	
Sheet width / Sheet length	EN 426	cm / m	125 / 20	



Total System Linogym Sport			
Flammability	EN 13501-1	class	D _{ff} - s2*
Overall thickness	EN 428	mm	12
Force reduction	EN 14904	%	33

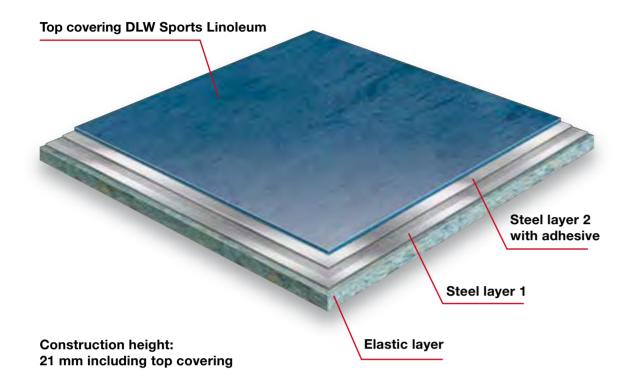
Application Areas





Linotop System

Linotop System - area-elastic flooring! Linotop is a sports floor system which reacts spontaneously even to lightweights and it is extremely hard-wearing. This flooring system consists of a special elastic layer with two steel plates on top which serves as load distribution layer.



Technical Specifications Specification according to EN 14904 / DIN V 18032-2 / EN 548

Linotop Sport Area-elastic sport floor system

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 548		Sportlinoleum: Linovation / Linodur / Linopro
Sheet width / Sheet length	EN 426	cm/m	200 / app. 28
Overall thickness	EN 428	mm	4.0











** Resistance to fat and mineral oil and short-term resistance against diluted acids.

* according to certificate, see www.dlwsports.com

Substructure Polyfer Interco	onnection-foam + 2 steel plate			
Overall thickness		mm	17	
Sheet length/Sheet width Vapour barrier		m / cm	200 / 30	
Total System Linotop Sport				
Flammability	EN 13501-1	class	C _{ff} - s1*	
Overall thickness	EN 428	mm	21	
Force reduction	EN 14904	%	47.8	
Vertical deformation	EN 14904	mm	2.55	
Ball rebound	EN 14904	%	98.3	

Application Areas

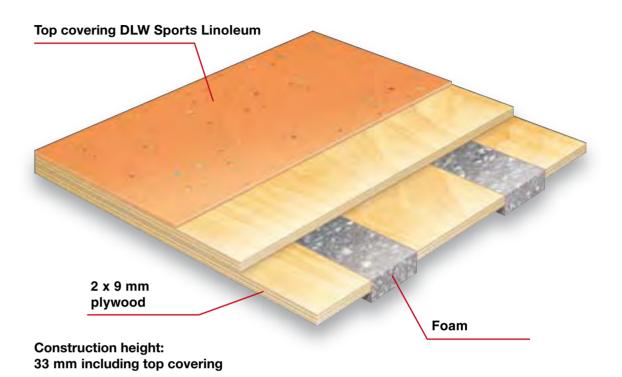
suitable for fitness, aerobic, rehabilitation facilities and multipurpose rooms of kindergartens





Linowood System

Linowood System - area-elastic flooring! Linowood is the ideal system for all multipurpose halls where sports activities on highest levels are to be performed. The system combines the remarkable sports-functional properties of Linoleum with a special substructure made of Multiplex plywood panels and foam materials which cares for excellent stability and surface resilience.



Technical Specifications

Specification according to EN 14904 / DIN V 18032-2 / EN 548

Linowood Sport Area-elastic sport floor system

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 548		Sportlinoleum: Linopro / Linovation / Linodur
Sheet width / Sheet length	EN 426	cm / m	200 / app. 28
Overall thickness	EN 428	mm	4.0











For Installation and maintenance recommendations and detailed technical data please check the Internet: www.dlwsports.com



Substructure Polywood				
Overall thickness		mm	29	
Total System Linowood Sport				
Flammability	EN 13501-1	class	C _{fl} - s2	
Overall thickness	EN 428	mm	33	
Force reduction	EN 14904	%	67	
Vertical deformation	EN 14904	mm	4.35	
Ball rebound	EN 14904	%	96	
Resistance to a rolling load	EN 1569		fulfilled	

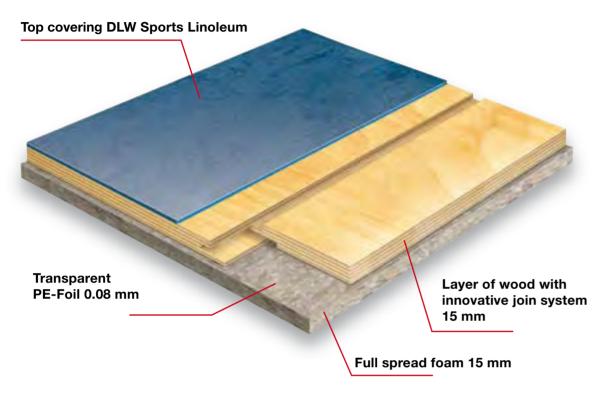
suitable for sports areas and multi-sports use according to EN 14904





System K

System K is an area-elastic and extremely hard-wearing sport flooring system. It combines the remarkable sport-functional properties of Linoleum with a special substructure made of full spread foam, a transparent PE-foil as dividing layer and a load distribution layer of wood. Due to the complete foam under layer this system is very robust and lends itself ideal for all multipurpose halls where sports activities on highest levels are to be performed.



Construction height: 34 mm including top covering

Technical Specifications Specification according to EN 14904 / EN 548

System K Area-elastic sport floor system

CHARACTERISTICS	STANDARD	UNIT	RESULT
Type of flooring	EN 548		Sportlinoleum: Linopro / Linovation / Linodur
Sheet width / Sheet length	EN 426	cm / m	200 / app. 28
Overall thickness	EN 428	mm	4.0













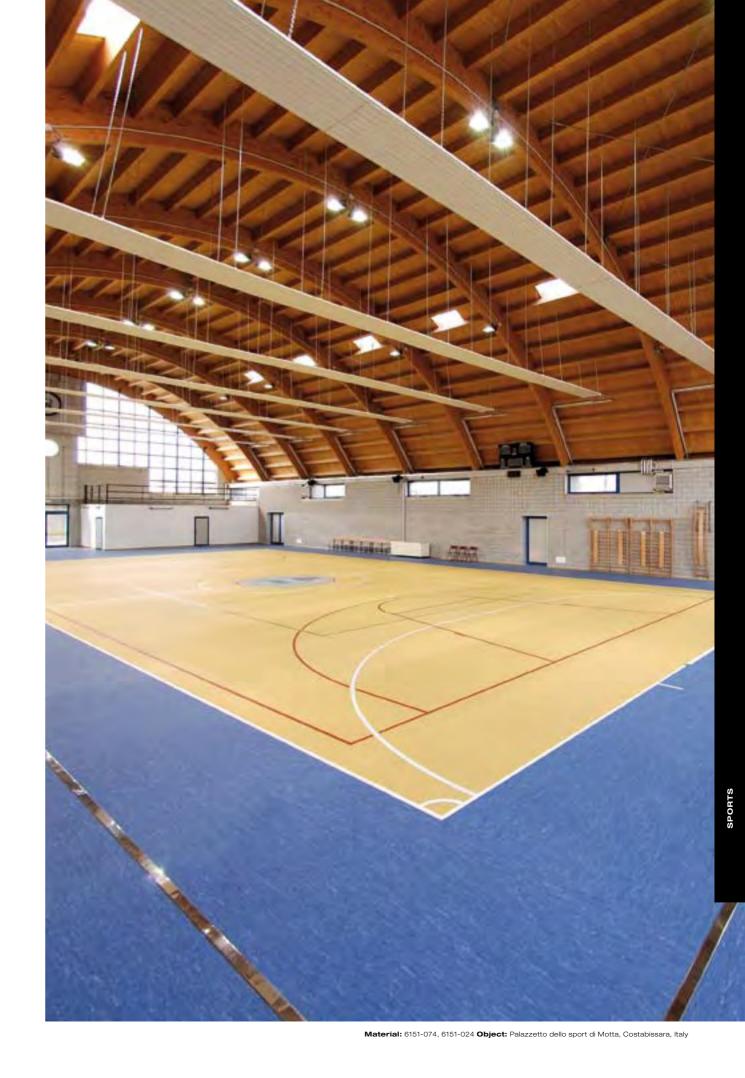
Substructure				
Overall thickness	EN 428	mm	30	
Sheet width / Sheet length PE-Folie	EN 426	m/m	25 / 4	
Total System System K				
Flammability	EN 13501-1	class	C _{fl} - s2*	
Overall thickness	EN 428	mm	34	
Force reduction	EN 14904	%	55	
Vertical deformation	EN 14904	mm	fulfilled	
Resistance to a rolling load	EN 1569		fulfilled	
Thermal resistance	EN 12667	m² K / W	0.43	

suitable for sports areas and multi-sports use nach EN 14904











SEGMENTS, ACCESSORIES, SERVICE





Armstrong Headquarter at Bietigheim-Bissingen, D





HEALTHCARE

PERFECT SOLUTIONS FOR HIGH REQUIREMENTS

The selection of floor coverings in the health care segment represents a major challenge in terms of planning and design. On one hand, the requirements of the clinical environment are very high, while on the other, patients need a relaxing and soothing atmosphere.

If they are to be restored to health, hygiene and cleanliness are the top priority. Typical soiling at hospitals such as blood, urine or iodine calls for floor coverings that are not only easy to clean but are also stain and moisture-resistant, and not sensitive to disinfectants. In areas where hygiene is critical, it is also necessary to ensure tightly sealed joints during installation to give bacteria no opportunity of taking hold. In addition, floor coverings used here must offer many other properties: Paramedics for example primarily assess the quality of flooring in relation to grip and resistance to rolling. Hospital patients or elderly people living in a home are looking for flooring that is easy to walk on and has a high non-slip factor, as well as good impact sound absorption. Operators of such facilities will usually be more interested in durability. The performance standards of floor coverings used in health care not only include resistance to chemical substances and castors, as well as a hygienic, easy-to-clean, durable surface, but also antistatic properties. A conductive vinyl floor, which guarantees trouble free working, is vital, particularly in the operating theatre. This type of flooring immediately dissipates any static electrical charge on a permanent basis.

Armstrong's range of floor coverings, which are unique both regarding their enormous variety and number, allow us to offer a complete solution for all clinical applications and from a single source. At the same time the Armstrong Design Service is on hand to help you create an inviting and soothing environment, which encourages a feeling of security and well-being, where colour is just as important as pattern and texture. It is a well-known fact that patients who feel at ease in their environment will recover faster.





Material: Scala 100 Wood, 20080-40 Object: Dental Practice XQ-dent, Bilthoven Architect: Buro Bogaarts Interieurarchitectuur, Arnheim, NL



AT A GLANCE



Martin Richter, woernerundpartne Dresden, Germany

"The targeted deployment of colours and materials, allied to the ambience they help create, plays a key role in providing orientation around the facility."





Object: University Clinic Leipzig, D





RECOMMENDATION FOR HEALTHCARE



AREA AND REQUIREMENTS

AREA AND REQUIREMENTS					
OFFICES, STAFF ROOMS					
Impact sound absorption	● ● Acoustic	Acoustic		••)))
Castor chair suitability	••	••	•	••	
Durability	••	••	•	••	
LABORATORY					
Resistance to chemicals	● ● PUR	● ● PUR	● PUR		PX
Easy cleaning	● ● PUR	● ● PUR	• PUR		
Castor chair suitability	● ● PUR	● ● PUR	● ● PUR		
If necessary conductivity	● LCH	● ● Conductive			
If necessary decontamination	● PUR	● ● PUR			₩
EXAMINATION ROOMS					
Easy cleaning	● ● PUR	● ● PUR	● ● PUR		
Bacteriostatic	••				X
Treading warmth	••				
Castor chair suitability	••	••			
IT ROOMS					
Conductivity	● ● LCH	● ● Conductive		• Conductive	Ź
CORRIDORS, STAIRS					
Durability	••	••	● PUR		
Impact sound absorption	● ● Acoustic	● ● Acoustic		••	O)))
Easy cleaning	● ● PUR	● ● PUR	••	•	
ENTRANCE HALL					
Smart appearance	•	•	••	•	
Aesthetics, atmosphere	•	•	••	•	
Durability	••	••	••	•	
Easy cleaning	● ● PUR	● ● PUR	● ● PUR		
Slip resistance R 9	••	••	••		

[●] Recommended ● ● Highly recommended



AREA AND REQUIREMENTS

LOUNGE					
Aesthetics, atmosphere	•	•	••		
Durability	••	••	••		
Easy cleaning	● PUR	● PUR	••		
OPERATING THEATRE					
Conductivity		● ● Conductive			<u>^</u> .
Hygiene		● ● Conductive			
Easy cleaning		● ● Conductive			
Disinfectant resistance		● ● Conductive			X
Indentation resistance		● ● Conductive			
Durability		● ● Conductive			
SURGERY					
Conductivity		● ● Conductive/ESD			÷ ×
Hygiene		● ● Conductive/ESD			<u>^</u> .
Disinfectant resistance		● ● Conductive/ESD			X
Indentation resistance		● ● Conductive/ESD			
Durability		● ● Conductive/ESD			
DIALYSIS					
Hygiene	● ● PUR	● ● PUR	● PUR		
Easy cleaning	● ● PUR	● ● PUR	● PUR		
Durability	● ● PUR	● ● PUR	● PUR		
Disinfectant resistance	● ● PUR	● ● PUR	● PUR		X
Conductivity	● ● LCH	● ● Conductive			

^{*} Special verification or certificate for this segment additionally to the common technical product features.



RECOMMENDATION FOR HEALTHCARE



AREA AND REQUIREMENTS

THERAP, GYM						
Resilience	Acoustic				••	
Force disassembly					••	₽
Slip resistance R 9	••	•				Ę,
Impact sound absorption	● ● Acoustic	● ● Acoustic		•	Linogym Linopol)))
TREATMENT ROOMS						
Aesthetics, atmosphere	•	•	••			
Treading warmth	••	•				
Individuality			••			
Cosy atmosphere	••	•	••			
Hygiene	● ● PUR	● ● PUR	● PUR			
Bacteriostatic	•					R
X-RAY ROOM						
Easy cleaning	● ● PUR	● ● PUR	• PUR			
Treading warmth	••					
Durability	● ● PUR	● ● PUR	● ● PUR			
Castor chair suitability	● ● PUR	● ● PUR	● ● PUR			
Conductivity	● ● LCH	● ● Conductive				
STORAGE ROOMS						
Durability	● ● Linodur	● ● Homogeneous				
Suitability for fork lifts	● ● Linodur	Homogeneous				
Indentation resistance	● ● Linodur	● ● Homogeneous				
Slip resistance R 9	● ● Linodur	● ● Homogeneous				Ę`\

Client and object-specific requirements may be lead to divergent flooring recommendations, this should be taken into account when recommending a flooring. In areas with high dirt entry and / or reduced cleaning frequencies is entering at an additional resilient floorcoverings recommended. Armstrong retains the right to change the specifications to change. The latest version of the document is available on our website to find www.armstrong.de.

OVERVIEW - CERTIFICATES, TECHNICAL INFORMATION AND TEST REPORTS

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Certificate "Antibacterial"



Technical information "Dynamic loading of fork lifts"



Technical information "Electrostatics"



Technical information "Floor coverings for operating theatre and surgery"



Certificate "Resistance to bacteria"



Certificate "Slip resistance"



Technical information "Dynamic and static loading"



Test report "Sound absorption"



Technical information "Chemical resistance"



Test report "Sports Systems"



Certificate "Decontamination"



Technical information "Chair roles and furniture, general"



Technical information "Resistance to disinfectants"



Test report "Air stream measurement", Technical information "Naturally ventilated floors"



HEALTHCARE







WE CAN SUGGEST A FLOOR COVERING FOR ANY HEALTHCARE INSTALLATION

Whether in a hospital or a physiotherapy rehabilitation centre, a residential home for the elderly or a nursing unit, nowadays it is more important than ever for interior design to be aesthetically appealing as well as economically and ecologically sensible.

The flooring not only has to look good but also has to stand up to the wear and tear of the type of room in which it is installed.

It is therefore all the more important for you to obtain technically competent and objective advice and to be shown fairly the benefits of the various products. As a leading manufacturer with many years of international experience in healthcare projects, Armstrong can offer you an incomparable choice of floor coverings, all from one source. The range includes linoleum; vinyl sheet and tile products; slip resistant vinyl; tufted carpets and carpet tiles in a huge selection of colours and textures; and highly specialized products including those for areas such as sports halls.

Armstrong customers also benefit from all the advantages that central project management and global expertise bring. Our healthcare specialists are able to guide you through product choice and flooring design, giving you the reassurance that your floor covering will meet all the specific requirements of your project.

THE RIGHT FLOOR COVERING FOR EVERY HEALTHCARE REQUIREMENT

₩ LINOLEUM

This environmentally friendly product, although a classic amongst floor coverings, is still surprisingly modern. Linoleum is produced from renewable raw materials and is an exemplary combination of user-friendliness, environmental compatibility and the best possible performance characteristics. With its wide range of attractive colours, its hardwearing properties and easy maintenance, linoleum ensures a practical yet comfortable environment. It is ideal for wards and residential homes, whilst also creating impressive entrance areas and waiting rooms.

四 VINYL

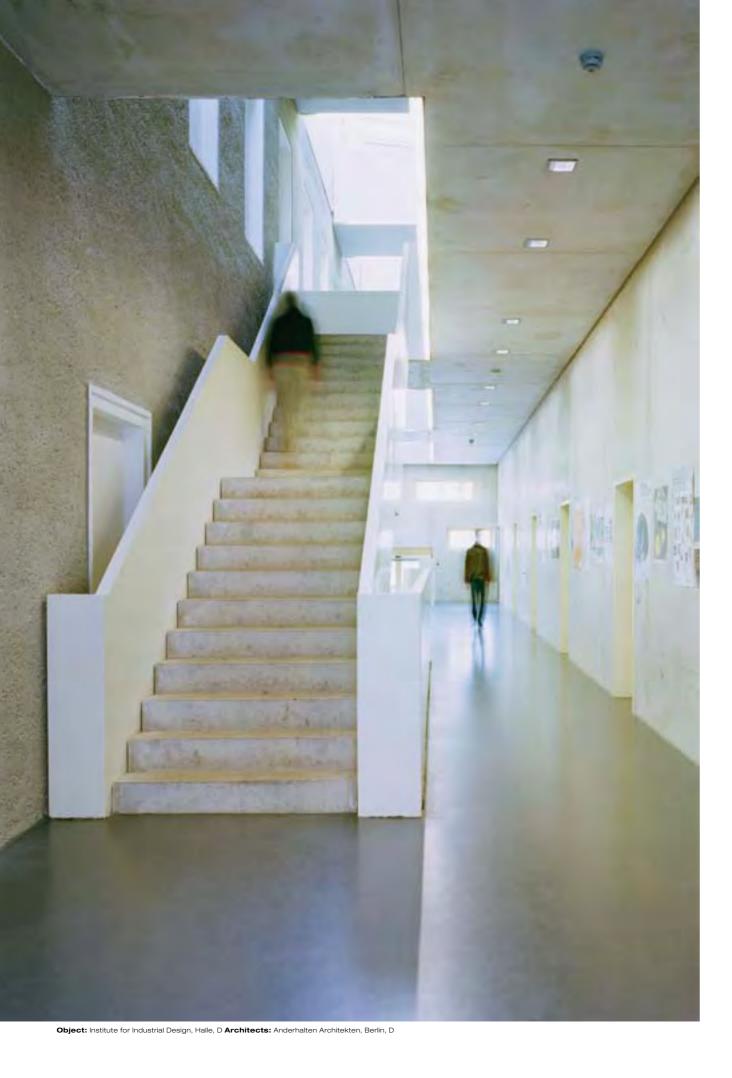
Vinyl floor coverings meet the most stringent performance demands without compromising on design, offering an unlimited variety of styles from chipping and linear patterns to wood visuals. Vinyl is ideal for all high-traffic areas such as an emergency department reception, an outpatients' clinic, corridors and entrance halls. Whether in sheet or tile format it is quick and simple to install. PUR coating ensures ease of cleaning, thus reducing maintenance costs to an absolute minimum. In areas where the requirement for static control is particularly stringent, such as operating theatres, conductive variations of our vinyl flooring are available.

四 LUXURY VINYL

Designer vinyl in tile format brings a touch of exclusivity to the flooring design. Luxury vinyl tile ranges such as Scala 30, Scala 55 and Scala 100 provide not only innovative metallic finishes but also authentic imitations of natural materials such as wood or stone. They are resistant to very heavy wear and can be installed quickly, so they are ideal for prestigious receptions and visitors' areas.

₩ FIBREBONDED

The most robust textile floor covering on the market. Available in a wide range of designs and colours, as broadloom or as tiles, fibrebonded floor coverings create an ambience of well-being that lasts and lasts, even with heavy use. The textile alternative for heavily frequented areas such as reception lobbies or administration offices.



EDUCATION

WHEN FLOORING HAS TO BE TOUGH

The flooring used in educational establishments has to perform a conjuring act like a chameleon while also satisfying precise requirements for a wide range of different purposes: It must cope with stringent demands, withstand heavy levels of traffic, meet the specifications for test laboratories and IT rooms as well as the acoustic standards for lecture rooms while still creating an atmosphere that is conducive to learning.

It is here that environmentally friendly, safe and healthy linoleum offers the perfect solution due to its excellent hygiene: It is extremely durable, and thanks to its easy maintenance so robust that it has no trouble in withstanding maximum levels of use. Our linoleum offers a range of bright and cheerful colours, which can be combined into different designs to produce a dynamic, inspiring environment that motivates children and adolescents to learn, so helping them perform better at school. In areas which need to be quiet such as libraries, lecture halls and classrooms, fibrebonded floor coverings are available as sheets or tiles offering excellent acoustic properties.

Vinyl on the other hand is the perfect solution for rooms where floors have to be resistant to chemical substances, for example in laboratories. But it is not just in schools where a welcoming interior design, comfort and design are a priority – this also applies to nurseries, where every day children play with building bricks and modelling clay or experiment with painting the floor! Linoleum is the ideal solution here. It not only has a welcoming feel to it, but also a natural antibacterial effect so children can be unhesitatingly allowed to play on it.

Armstrong has more than 125 years of experience and the necessary expertise in all levels of the education system – from the nursery, through primary and secondary school to university – this means we always knows which floor coverings are suitable for the specific requirements of each room.





Material: DLW Linoleum, Mamorette, 125-072 Object: Special School Westerwel Tilburg, NL Architects: Rienks Architecten, Breda, NL



WHAT A FLOOR HAS TO DELIVER



Günter Helten, Hahn Helten and associates, Aachen, Germany

"The striking contrast between the cool exposed-concrete walls and the warm yellow of the flooring echoes the clear architectural structuring in the interior."





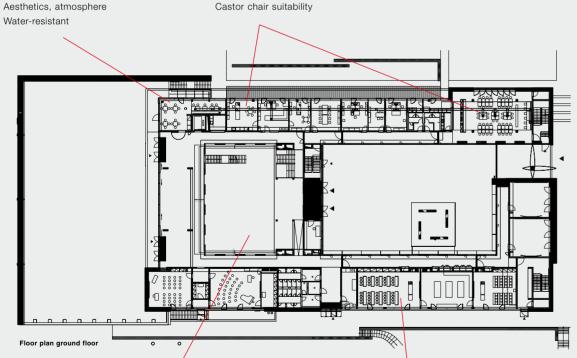
DINING ROOMS, CAFETERIA, SOCIALROOMS Slip resistance Easy cleaning Durability Aesthetics, atmosphere

OFFICES, STAFFROOMS

Aesthetics, atmosphere Impact sound absorption Durability

MEETING ROOMS

Comfort
Aesthetics
Sound insulation
Castor chair suitability



ENTRANCE AREAS, CLOAKROOM, ASSEMBLY HALL

Aesthetics, atmosphere Durability Desoiling zones Easy cleaning

SPECIAL-PURPOSE ROOMS, LABORATORY

Stain resistance
Easy cleaning
Resistance to chemicals
Conductivity

GYMS, SPORTS HALLS, CHANGING ROOMS

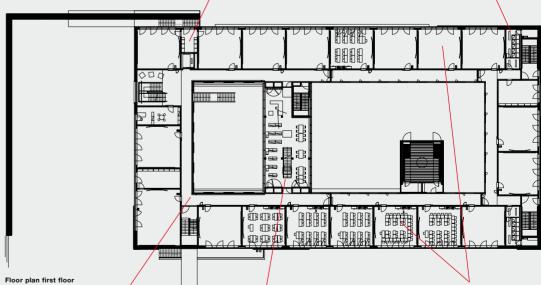
Resilience
Slip resistance
Durability
Hygiene, Easy cleaning
Treading warmth
Ergonomics

STORAGE ROOMS/SUPPLIES

Toughness
Durability
Non-slip surface
Slip resistance

WET AREA

Slip resistance Hygiene Easy cleaning



CORRIDORS, STAIRCASES

Durability Impact sound absorption Slip resistance

LIBRARY

Aesthetics, atmosphere Impact sound absorption Durability

CLASSROOMS, LECTURE ROOMS, COMMON ROOMS

Aesthetics, atmosphere Durability Impact sound absorption Hygiene Treading warmth



RECOMMENDATION FOR EDUCATION



AREA AND REQUIREMENTS

AREA AND REQUIREMENTS						
OFFICES						
Impact sound absorption	● ● Acoustic	Acoustic		••		o)))
Castor chair suitability	••	••	•	••		
Durability	••	••	•	••		
Aesthetics	•	•	••	•		
CLASSROOMS						
Aesthetics, atmosphere	••	••	•	•		
Durability	••	••	•	••		
Slip resistance R 9	••	••	•			Ţ
Impact sound absorption	Acoustic	• Acoustic		••		o)))
Hygiene	••	•	•			
Treading warmth	••			••		
SPECIAL-PURPOSE ROOMS						
Easy cleaning	● ● PUR	● ● PUR	•	•		
Castor chair suitability	••	••	•	•		
If necessary conductivity	● ● LCH	● ● Conductive		•		
Resistance to chemicals	● ● PUR	● ● PUR	•			<u>۾</u>
DINING ROOMS				•		
Aesthetics, atmosphere	● Inlays	● Inlays	••			
Slip resistance R 9	••	••	••			於
Durability	••	••	••			
Easy cleaning	● ● PUR	● ● PUR	● ● PUR			
GYMS, SPORTS HALLS						
Resilience	Acoustic Linodur				••	
Slip resistance R 10 or Barefoot Class A	● Linodur					Ę`\
Durability	● Linodur				••	
Force disassembly					••	
Treading warmth	•				•	
Easy cleaning	•				•	





AREA AND REQUIREMENTS

CORRIDORS, STAIRS									
Slip resistance R 9	••	••	•			₹,			
Durability	••	••	•	••					
Impact sound absorption	● ● Acoustic	● ● Acoustic		••		>))			
Easy cleaning	● ● PUR	● ● PUR	● ● PUR	•					
STORAGE ROOMS									
Durability	● ● Linodur	● ● Homogeneous	•	•					
Slip resistance R 9	••	•	•			Ę'			
Easy cleaning	● ● PUR	● ● PUR	● ● PUR	•					
Indentation resistance	● ● Linodur	● ● Homogeneous	•	•		B			
MEETING ROOMS									
Impact sound absorption	Acoustic	Acoustic		••)))			
Aesthetics, atmosphere	•	•	••	•					
Indentation resistance	••	••	•	••					
Castor chair suitability	••	••	•	••					
Durability	••	••	•	••					
ENTRANCE AREA									
Aesthetics, atmosphere	•	•	••	•					
Durability	••	••	••	•					
Easy cleaning	● ● PUR	● ● PUR	● ● PUR	•					
IT ROOMS									
Conductivity	● ● LCH	● ● Conductive		• Conductive		Ź			
Castor chair suitability	● ● LCH	● ● Conductive		● ● Conductive					
Impact sound absorption				● ● Conductive		[W]			

Client and object-specific requirements may be lead to divergent flooring recommendations, this should be taken into account when recommending a flooring. In areas with high dirt entry and / or reduced cleaning frequencies is entering at an additional resilient floorcoverings recommended. Armstrong retains the right to change the specifications to change. The latest version of the document is available on our website to find www.armstrong.de.

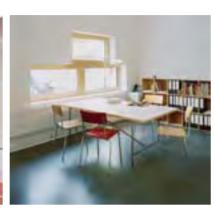
^{*}Special verification or certificate for this segment additionally to the common technical product features.



EDUCATION







WE CAN SUGGEST A FLOOR COVERING FOR ANY EDUCATION INSTALLATION

Whether in a nursery, a school or a college, it is more important than ever today to design interiors that are aesthetically appealing as well as economically and ecologically sensible.

The floor takes on particular and decisive importance in this respect, because it not only has to look good but also has to stand up to the wear and tear of the room in which it is installed. It is therefore all the more important for you to obtain technically competent and objective advice. As a highly reputable manufacturer with many years of international experience in educational projects, Armstrong can offer you an unrivalled choice of floor coverings, all from one source. The range includes linoleum and vinyl as well as fibrebonded, luxury vinyl tiles and highly specialized products for sports halls and entrances.

As our customer you will also benefit from all the advantages that central project management and global expertise can bring. Our specialist education sales managers will guide you through the entire project and ultimately you will have the reassurance that your floor covering will meet all the specific requirements of your project.

THE RIGHT FLOOR COVERING FOR EVERY EDUCATION REQUIREMENT

₩ LINOLEUM

This environmentally friendly product, a classic amongst resilient floor coverings, remains surprisingly modern. Linoleum is manufactured almost completely from renewable raw materials and is a great combination of environmental compatibility with the best possible wear characteristics. With its wide range of warm colours, hardwearing properties and ease of maintenance, linoleum ensures a cosy, homely atmosphere. It is ideal for classrooms, corridors and prestigious entrance lobbies.

碶 VINYL

Vinyl floor coverings meet the most stringent demands for resistance to wear without compromises in design. Vinyl offers an unlimited variety of designs, from chip and linear designs to imitation wood. It is the cost-conscious alternative for all high-traffic areas such as lecture theatres and canteens. Whether in roll format or as tiles, it is quick and simple to install. PUR coating, ensures ease of maintenance and reduces the cost of cleaning to an absolute minimum. In areas where the requirement for electrical conductivity is particularly stringent, such as in chemistry labs and technical lecture theatres, the conductivity of vinyl makes it the floor covering of choice.

図 FIBREBONDED

The most robust type of textile floor covering on the market. Available in a wide range of appealing designs and colours, as broadloom or as tiles, fibrebonded floor coverings create an ambience of well-being that lasts and lasts, even with heavy use. It can withstand chair castors, is conductive and has good sound-damping characteristics making it the perfect solution for group and teaching rooms, staff rooms, libraries and offices where a textile covering is required.

盟 SPORTS

Armstrong has a range of specialist sports floor coverings that are highly point-, aeraand multi-elastic and made from environmentally friendly linoleum. They are ideal for all indoor sports facilities such as gymnasia and exercise rooms.





Material: Luxury Vinyl 20070-180 Object: Professional Hairdressing Academy L'Oréal, Kiew Architects: m2r architecture, London, GB

RETAIL

NO LIMITS TO CREATIVITY

Retailers have long been aware that shopping has become one of the most popular leisure activities. They also know that the decision whether to enter a shop is made in a fraction of a second. For this reason, the ambience of a shop must attract customers and make them feel like buying while encouraging brand loyalty. Impressive shop design reinforces the recognition response, so helping to raise the profile of the brand. Fashion and trends never stand still. This means that nowhere else does interior design have to move so fast as in retail.

Wide scope for flooring design is particularly important when it comes to retailers. With its extensive range of materials and designs Armstrong can offer the right solutions for virtually all interiors and brand profiles. Even combining textile and resilient floor coverings is not a problem. Consultants therefore have no difficulty in tailoring their designs to the target group and products in question. The sales area of a fashion brand aimed at teenagers for example is generally characterised by cutting-edge design, eyecatching lighting, strong colours and original structures. A shop serving more upmarket customers or focusing on families will on the other hand tend to opt for more traditional designs as it aims to create an impression of quality, integrity and stability. But whether a hip boutique or a traditional department store: in retailing as in no other sector it is essential to keep refurbishment times to a minimum. Time is money here. Merchandise must be out on display, not hidden away in stockrooms! Ideally retail areas should be refurbished quickly and smoothly. And it is thus all the more important that the floor covering selected is quick and easy to install.

Armstrong, one of the biggest and best-known manufacturers in the retail sector, would be delighted to assist with the visual implementation of your shop fitting concept – at any stage of the process. Just contact our customer advisors.





Material: DLW Luxury Vinyl, Scala 100 Feature, 20070-180, 20070-171, 20070-112

Object: Bag-Shop LYDC, Düsseldorf, D Architects: room & ehre, Düsseldorf, D



UNPARALLELED VERSATILITY: FLOOR COVERINGS FROM ARMSTRONG





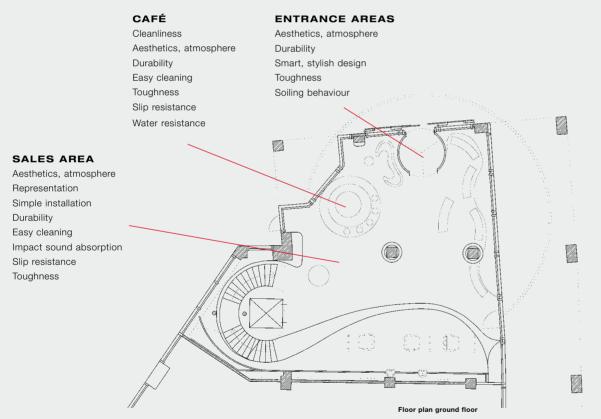
Hendrik Lepinat, Matthias Peglau, ECE Projektmanagement G.m.b.H. & Co. KG

"If you would like to move from two dimensions into three dimensions, you will quickly learn to value the advantages of Armstrong products."





Object: Nivea House, Hamburg, D



REPAIR WORK-SHOPS

Tough, resilient design Toughness Durability

Resistance to chemicals

GROCERY SHOPS, SUPERMARKETS

Toughness
Durability
Easy cleaning
Cleanliness
Hygiene

DEPARTMENT STORES

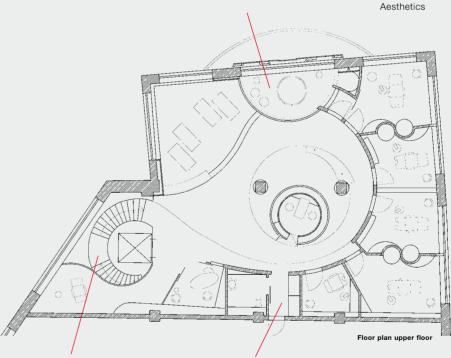
Aesthetics and atmosphere Simple installation Durability Simple cleaning/Hygiene Slip resistance Toughness

WET AREAS

Cleanliness Hygiene Easy cleaning

BREAK AREA

Easy cleaning
Aesthetics



CORRIDOR, STAIRCASE

Durability Impact sound absorption Slip resistance

STORAGE ROOMS

Toughness
Durability
Non-slip surface
Slip resistance

OFFICE

Toughness Cleanliness Impact sound absorption Castor chair suitability Durability Aesthetics



RECOMMENDATION FOR RETAIL



AREA AND REQUIREMENTS

ENTRANCE AREA									
Aesthetics, atmosphere	•	•	••						
Durability	••	••	••						
Easy cleaning	● ● PUR	● ● PUR	● ● PUR						
Slip resistance R 9	••	••	••			彭			
SALES AREA									
Aesthetics, atmosphere	•	•	••	•					
Representation			••						
Durability	••	••	••	••					
Impact sound absorption	● ● Acoustic	● ● Acoustic		••		沙			
Slip resistance R 9	••	••	••			Ē			
Slip resistance R 10			••			Ē			
Easy cleaning	● ● PUR	● ● PUR	••	••					
BREAK AREA									
Aesthetics	•	•	••	•					
Easy cleaning	● ● PUR	● ● PUR	● ● PUR	•					
OFFICES									
Castor chair suitability	••	••	•	••					
Impact sound absorption	● ● Acoustic	● ● Acoustic		••		o)))			
Durability	••	••	•	••					
Easy cleaning	● ● PUR	● ● PUR	● ● PUR	••					

Recommended
 ● Highly recommended



AREA AND REQUIREMENTS

CORRIDORS, STAIRS									
Durability	••	••	•	••					
Impact sound absorption	● ● Acoustic	● ● Acoustic		••		-)))			
CAFÉ									
Aesthetics, atmosphere	• Inlays	• Inlays	••						
Slip resistance R 9	••	••	••						
Slip resistance R 10			••			F			
Durability	••	••	••						
Easy cleaning	● ● PUR	● ● PUR	● ● PUR						
STORAGE ROOMS									
Durability	● ● Linodur	● ● Homogeneous	•	•					
Slip resistance R 9	••	● ● Homogeneous	•			Ţ`			
Slip resistance R 10			••			Ţ,			
Indentation resistance	● ● Linodur	● ● Homogeneous	•	•		6			

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^{*}Special verification or certificate for this segment additionally to the common technical product features.



RETAIL







ARMSTRONG-YOUR EXPERT IN FLOORING SOLUTIONS FOR RETAIL DESIGN

Whether for a fashion boutique, supermarket or car showroom, retail design is more important than ever. The interior style should please, entice, surprise ... and put the customer in a buying mood.

The floor is terribly important: not only should it look good, it also has to fulfil a number of performance criteria depending on the type of establishment.

Competent, unbiased advice that tells you frankly about the suitability of different products is therefore all the more crucial. As a well known manufacturer with worldwide experience in retail flooring, Armstrong offers an unrivalled selection of flooring solutions from one source – from luxury vinyl tiles, linoleum and sheet vinyl to fibrebonded.

As our customer, you will also benefit from the advantages of central project management and global expertise. We are competent in handling roll-out programmes and meeting tight timescales for store openings. Our specialist retail sales managers backed up by technical, design and customer service teams ensure that you have the floor covering that best meet the specific needs of your project.

THE RIGHT FLOOR FOR EVERY RETAIL REQUIREMENT

₩ LINOLEUM

This environmentally friendly product, although a classic amongst floor coverings, is still surprisingly modern. Linoleum is produced from renewable raw materials and is an outstanding example of user-friendliness, environmental compatibility and the best possible performance characteristics. With its wide range of attractive colours, hardwearing properties and ease of maintenance, linoleum is an extremly practical floor covering.

四 VINYL

Vinyl floorcoverings meet the most stringent wear requirements without making any compromise in design, offering an unlimited variety of styles from chipping and linear patterns to wood visuals. Vinyl is ideal for all areas subject to intensive use and high demands for easy maintenance. Whether in sheet or tile format it is easy to install and the PUR coating ensures ease of maintenance, thus reducing cleaning costs to a minimum.

四 LUXURY VINYL

Designer vinyl floor coverings add an exciting touch to retail design. Ranges such as Scala 30, Scala 55 and Scala 100 provide not only innovative metallic finishes but also authentic imitations of natural materials such as wood and stone. They are highly durable and can be quickly installed.

₩ FIBREBONDED

The most robust textile floor covering on the market. Available in a wide range of attractive designs and colours, as broadloom or as tiles, fibrebonded floor coverings create an ambience of well-being that lasts and lasts, even with heavy use.





OFFICE

IMAGE ENHANCED BY HIGH QUALITY

In business a good image is crucial. Visitors to a company gain an initial impression of its professionalism, technical expertise and even of its basic values as soon as they step into its offices for the first time. Here it is important for the corporate philosophy to be reflected in the interior design, so subtly underlining the principles of the organisation.

Armstrong's wide selection of contemporary and traditional designs offers an ideal solution whatever the corporate environment. Here it does not matter whether a business with just one site is involved or national or international businesses with several branches, which want a single procurement plan for all offices and a uniform design for their interiors: The Armstrong product programme can deliver a perfect solution whatever the requirements.

Armstrong has been a key supplier of floor coverings in the office sector for years. It works with architects, interior designers and end customers to develop practical yet stylish product lines which are tailored to the specific needs of this demanding sector. Be it a prestigious reception area, an open-plan office or the more functional requirements of a staff canteen or washroom: the variety offered by Armstrong's product portfolio guarantees that a selection of exclusive products is available for every company, in line with its image and budget. Here there should be an optimum relationship between a long life, an elegant appearance and a low purchasing cost. For example, very durable flooring is suitable for open-plan offices, corridors, break rooms and social areas while a comfortable, high-quality floorcovering is recommended for meeting rooms. The acoustic quality of a floor covering such as noise reduction and impact sound absorption also play a key role if levels of concentration and performance are not to suffer. An appealing design additionally encourages greater creativity and efficiency at work.





Material: DLW Linoleum, Uni Walton, 101-057, Object: Administration and Production Building, Fiberline, Middelfart, DK Architects: KHR Arkitekter, Kopenhagen, DK

Material: Strong, 951-088, Object: WGV Insurance Company, Stuttgart, D Architects: ippolito fleitz group, Stuttgart, D



THE SPECIALIST FOR ALL APPLICATIONS



Eike Becker, Eike Becker_Architects, Berlin, Germany

"In the perhaps 600 000 years of human development, the floor has most probably been the key reference point for our species, and still today has a profound effect on our conscious and unconscious behaviour."





Object: Office Building Z-zwo, Stuttgart-Möhringen, D

CAFETERIA, CANTEEN,

Tea kitchen

Aesthetics, comfort

Simple cleaning and maintenance

Durability

Slip resistance

Cleanliness

CORRIDOR, STAIRCASE

Durability

Impact sound absorption

Slip resistance

SANITARY FACILITIES

Slip resistance

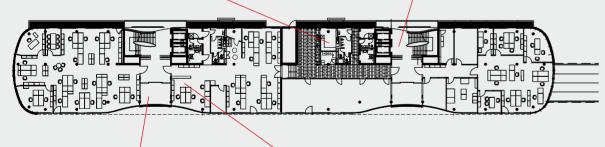
Hygiene Easy cleaning IT

Flexible replacement

Durability

Sound insulation
Castor chair suitability

Conductivity



Floor plan ground floor

ENTRANCE AREAS

Aesthetics, atmosphere

Durability

Soiling behaviour

Smart, stylish design
Impact sound absorption

RECEPTION

Aesthetics, corporate identity

Sound insulation

Castor chair suitability

Durability

Desoiling zone

Floor plan upper floor

MEETING ROOMS

Comfort

Aesthetics, corporate identity

Sound insulation

Castor chair suitability

OFFICES

Sound insulation

Castor chair suitability

Durability



RECOMMENDATION FOR OFFICE



AREA AND REQUIREMENTS

ENTRANCE AREA					
Aesthetics, atmosphere	•	•	••	•	
Smart, stylish design	•	•	••	•	
Corporate identity	● ● Logo Inlays	Logo Inlays	• Logo Inlays	• Logo Inlays	
Durability	••	••	••	•	
Slip resistance R 9	••	••	••		
Sound insulation				••	
MEETING ROOMS					
Comfort	Acoustic	Acoustic	•	••	
Aesthetics	Inlays	● Inlays	••		
Corporate identity	● ● Logo Inlays	• Logo Inlays	•		
Impact sound absorption	Acoustic	Acoustic		••	
Suitability for naturally ventilated floor				••	
OFFICES					
Castor chair suitability	••	••	•	••	
Durability	••	••	•	••	
Suitability for naturally ventilated floor				••	
Impact sound absorption	● ● Acoustic	● ● Acoustic		••	

Recommended
 ● Highly recommended



AREA AND REQUIREMENTS

CORRIDORS, STAIRS					
Slip resistance R 9	••	••	•	•	Ę`
Easy cleaning	● ● PUR	● ● PUR	● ● PUR	•	
Durability	••	••	•	••	
Impact sound absorption	● ● Acoustic	● ● Acoustic		••	~)))
Suitability for naturally ventilated floor				••	₹.≯ }{
IT ROOMS					
Conductivity	● ● LCH	● ● Conductive		Conductive	Ź
Durability	● ● LCH	● ● Conductive		● ● Conductive	
Castor chair suitability	● ● LCH	● ● Conductive		● ● Conductive	
Impact sound absorption				● ● Conductive	->)))
STORAGE ROOMS					
Durability	● ● Linodur	● ● Homogeneous,	•	•	
Slip resistance R 9	••	● ● Homogeneous,	•		Ę,
Easy cleaning	● ● PUR	● ● PUR	● ● PUR	•	
RESTAURANT					
Aesthetics, comfort	Inlays	• Inlays	••		
Durability	••	••	••		
Slip resistance R 9	••	••	••		Ē

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^{*}Special verification or certificate for this segment additionally to the common technical product features.



OFFICE







WE CAN SUGGEST A FLOOR COVERING FOR ANY OFFICE INSTALLATION

In areas where lots of people work and move around, the floor is subjected to heavy wear and tear. But to keep the office looking its best and to keep cleaning costs to a minimum, the floor has to be easy to maintain. The solution is to choose the correct floor for the right area whilst balancing durability, aesthetics and cost - for example a durable floor covering for the breakout area and a more comfortable, luxurious floor for the conference rooms.

A pleasant environment not only makes people feel good, it also inspires them to achieve more. In communal working areas or open plan offices, it is important to keep noise to a minimum so that everyone can concentrate and focus on their job. Here, design and acoustics are the key factors. The environment needs to be warm, soft and comfortable - even to the point of making the floor seem a perfectly natural place to sit down and think!

THE RIGHT FLOOR COVERING FOR EVERY OFFICE REQUIREMENT

₩ LINOLEUM

This environmentally friendly product, although a classic amongst floor coverings, is still surprisingly modern. Linoleum is produced from renewable raw materials and is an outstanding example of user-friendliness, environmental compatibility and the best possible performance characteristics. With its wide range of attractive colours, hardwearing properties and ease of maintenance, linoleum is an extremely practical floor covering and therefore ideal for corridors and coffee corners.

四 VINYL

Vinyl floor coverings meet the most stringent wear requirements without making any compromise in design, offering an unlimited variety of styles from chipping and linear patterns to wood. Whether in sheet or tile format vinyl is easy to install and the PUR coating ensures ease of maintenance. Vinyl is a cost-conscious alternative for all areas subject to intensive use and is the first choice for zones prone to static build-up such as computer rooms.

四 LUXURY VINYL

Designer floor coverings add an exciting touch to design for offices. Vinyl ranges such as Scala 30, Scala 55, Scala 100 provide not only innovative metallic finishes but also authentic imitations of natural materials such as wood and stone. They are highly durable, quickly installed and they are perfect for receptions as well as corridors and canteens.

₩ FIBREBONDED

The most robust textile floor covering on the market. Available in a wide range of attractive designs and colours, as broadloom or as tiles, fibrebonded floor coverings create an ambience of well-being that lasts and lasts, even with heavy use.





SPORTS

FIRST CHOICE FOR FUN AND FITNESS

Where every sportsman is playing for important scores, also the floor has to do its best. On the one hand it is important that jumps and falls are cushioned but on the other hand the floor covering must also endure a lot. At the same time the floor has to care that no one slips. Besides the floor has to be resistant against the daily training of several teams a day and therefore it should be durable.

Here the natural product Linoleum with its optimal grip, flexibility and durability is an ideal solution. Through the unusual wide range o designs colours Armstrong offers the opportunity to create a surrounding where it makes even more fun to do sports.

DLW Sports stands for innovative and long-lasting Linoleum sports floors and as well point-elastic as area-elastic systems at an uncompromising level of quality.

Whether you need a floor for a multi-purpose halls or a special system for health and fitness, DLW Sports offers - as a world wide market leader - a wide range to meet all profiles of requirements.





Material: 6151-024, 6151-072 Object: Floretu, Gdansk, PL

Material: 6151-017, 6151-042 Object: Radebeul Sports Hall, D



STRIKINGLY INCONSPICUOUS



Gabriele Schönherr-Juli and Jürgen Juli, Schönherr + Juli Architekten BDA Fulda, D

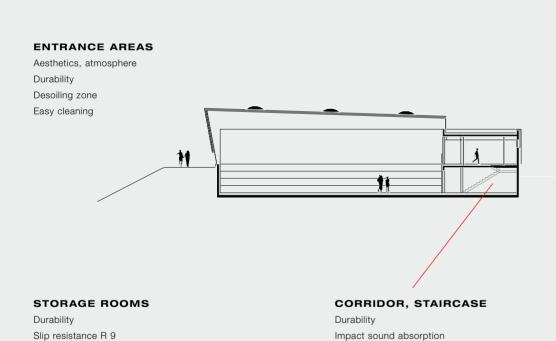
"In order to achieve a decisive integration into the landscape and in consideration of the neighbouring development, the hall will be constructed at a depth of about three metres into the terrain. The compact volume with a small surface area above ground and the favourable positioning of the building will ensure the economical and efficient use of energy."



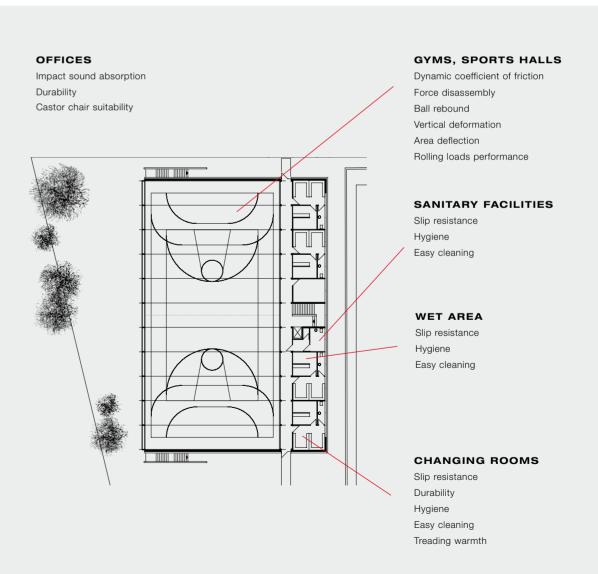




Object: Sports Hall Bardoschool, Fulda



Slip resistance



Suitability for fork lifts

Indentation resistance
Easy cleaning



RECOMMENDATION FOR SPORTS SEGMENT



AREA AND REQUIREMENTS

AREA AND REQUIREMENTS					
SPORTS HALLS					
Area-elastic system				••	
Sport floor covering				••	
GYMS					
Point-elastic system				••	
Floor covering	Marmorette Acoustic			•	
AEROBIC STUDIOS					
Point-elastic system				••	
Floor covering	Marmorette Acoustic			•	
EXERCISE ROOMS					
Area-elastic system				••	
Point-elastic system				••	
Sports floor covering				••	
REHABILITATION CENTRES					
Point-elastic system				••	
Floor covering	Marmorette Acoustic			•	
STORAGE ROOMS					
Durability	• Linodur	Homogeneous		••	
CHANGING ROOMS					
Wet barefoot area Class A	● ● Linodur				F

Recommended
 ● Highly recommended



AREA AND REQUIREMENTS

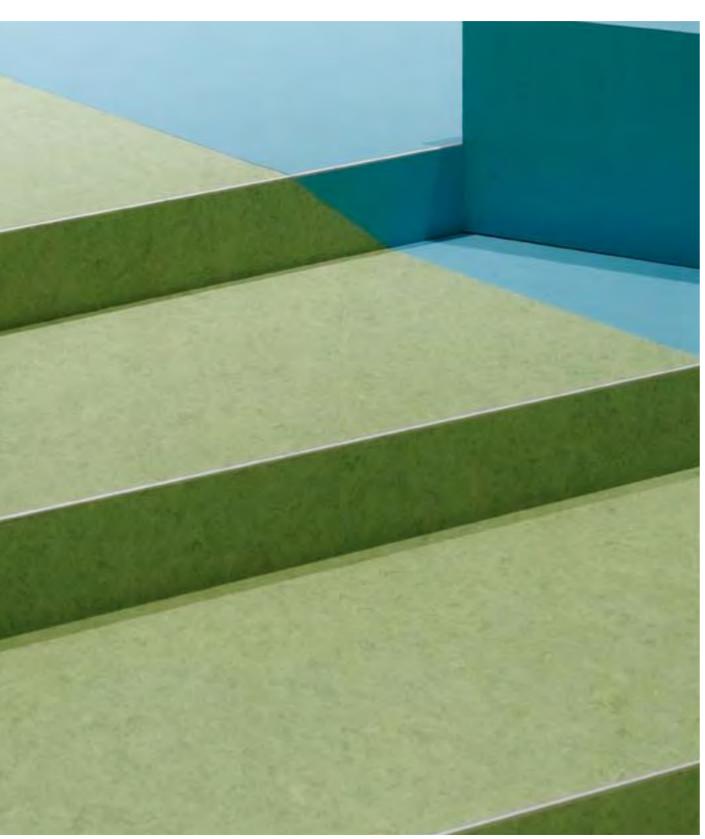
CORRIDORS, STAIRS						
Durability	••	••	••	•	•	
OFFICES						
Castor chair suitability	••	•	•	••	•	
Durability	••	•	•	••	•	
ENTRANCE AREA						
Aesthetics, atmosphere	••	•	••		•	
Durability	••	••	•		•	
Easy cleaning	● ● PUR	● ● PUR	● ● PUR		● ● Linopro Sport	
RESTAURANT						
Aesthetics, comfort	● ● Inlays	• Inlays	••			
Durability	••	••	••			
Slip resistance R 9	••	••	••			F

Client and object-specific requirements may be lead to divergent flooring recommendations, this should be taken into account when recommending a flooring. In areas with high dirt entry and / or reduced cleaning frequencies is entering at an additional resilient floorcoverings recommended. Armstrong retains the right to change the specifications to change. The latest version of the document is available on our website to find www.armstrong.de.

^{*}Special verification or certificate for this segment additionally to the common technical product features.

Armstrong

ARMSTRONG ACCESSORIES



ALUMINIUM PROFILES

1. EDGE TRIMS

Whether you use DLW Linoleum, DLW Vinyl, DLW Luxury Vinyl or DLW Fibrebonded, Armstrong offers the matching profiles.

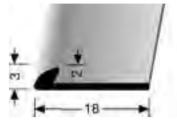
All edge trims are made of elegant and long lasting aluminium. These profiles provide perfect sectioning of different floorings

between two rooms. And it can also be a decorative and protective finish of floorings on stairs and podiums.

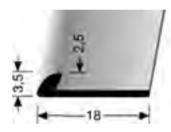
The edge trims can also be used as a skirting board for the finish of a flooring stripe. So it provides an elegant joint between flooring and wall.

All edge trims have countersunk holes so that these profiles can either be screwed or glued to the wall or floor.

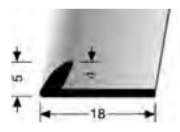
	Туре	Colour	Supplied as	Article No.		
-	Edge trim (2.0 mm)	Aluminum anodized	2.5 m	29221		
	Edge trim (2.5 mm)	Aluminum anodized	2.5 m	29222		
	Edge trim (4.0 mm)	Aluminum anodized	2.5 m	29223		
	Edge trim (6.0 mm)	Aluminum anodized	2.5 m	29224		



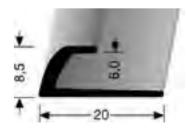
29221 - for DLW Linoleum, DLW Vinyl and DLW Luxury Vinyl 2.0 mm thick



29222 - for DLW Linoleum, DLW Vinyl and DLW Luxury Vinyl 2.5 mm thick



29223 – for DLW Linoleum 4.0 mm thick, DLW Vinyl, Imperial Texture and DLW Luxury Vinyl and DLW Linoleum 3.2 mm thick



29224 - for DLW Fibrebonded app. 6.0 mm thick



ARMSTRONG ACCESSORIES

2. STAIR NOSING EDGES

Especially for stairs and podiums Armstrong offers nosing edges made of elegant and durable aluminium. The following components are important facilities for neat installation or renovation of stairs. Armstrong offers various profile solutions, which are easy and timesaving to install on different floor coverings. With these profiles the stairs are protected and safe.

29333 – Perfect if the flooring is only used on top of the step. The stair nosing profile protects the flooring's as well as the stair nib's edge. It can be used for DLW Linoleum, DLW Vinyl and DLW Luxury Vinyl 2.0 mm to 2.5 mm thick. 29333 are available with countersunk holes so that it can be screwed. It is also fluted for adhesive so it can be glued on the step as well.

29334 – Ideal when the floor covering should be installed on both tread and on raiser. It covers both edges. This stair nosing is suitable for DLW Linoleum, DLW Vinyl and DLW Luxury Vinyl 2.0 mm to 2.5 mm thick. 29334 have countersunk holes so that it can be screwed and it also is fluted for adhesive.

Туре	Colour	Supplied as	Article No.		
Stair nosing edge, single blade	Aluminum anodized	2.5 m	29333		
Stair nosing edge, double blade	Aluminum anodized	2.5 m	29334		

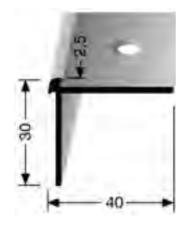
3. SAFETY STAIR NOSING

Alternatively to the above mentioned stair nosing Armstrong offers an aluminium safety stair nosing edge. To achieve full safety properties it should be combined with the contrasting black insert made of fluted PVC, which is also available. Armstrong safety stair nosings can be used on all flooring materials. It is available with countersunk holes to be screwed to the staircase, on top of the installed flooring.

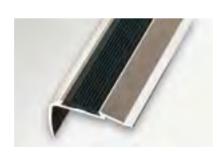
Туре	Colour	Supplied as	Article No.			
Stair nose	Aluminum anodized	2.5 m	29331			
Insert	PVC, black	2.5 m	29332			

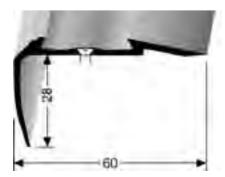


29333 - for DLW Linoleum, DLW Vinyl and DLW Luxury Vinyl 2.0 mm to 2.5 mm thick.



29334 – for DLW Linoleum, DLW Vinyl and DLW Luxury Vinyl 2.0 mm to 2.5 mm thick.





4. BASE-BOARD

For perfect appearance of corridors and rooms equipped with any flooring, Armstrong also offers an elegant and sturdy aluminium base-board.

The patented base-board is the first of its kind that can be installed from both sides. It can be installed to show the elegant anodized aluminium surface on the front. Turned around, any flooring material or other decorative stripe of up to 3 mm thickness can be inserted into its slot.

To join two or more base-boards, to install at corners and to complete the base-boards ends, all necessary accessories are made of the same material are also available.

For easy installation we recommend to use our adhesive tape, shaped tridimensionally for perfect fit.

Туре	Colour	Supplied as	Article No.
Base-board	Aluminum anodized	2.5 m	29441
End cap left	Aluminum anodized	1 piece	29442
End cap right	Aluminum anodized	1 piece	29443
Internal corner	Aluminum anodized	1 piece	29444
External corner	Aluminum anodized	1 piece	29445
Connecting unit	Aluminum anodized	1 piece	29446
Adhesive tape		1 roll = 10 m	29447







ARMSTRONG ACCESSORIES

SKIRTING BOARDS

1. COVE-FORMER HPR 2525/5050

HPR is a rubber profile which has to be combined with the favoured flooring on the construction site. Beside its nice shape it is particularly easy to clean. The process of installing is simple and can be carried out by any experienced flooring layer. The both cove-former HPR 2525 and HPR 5050 can be used on any types of subfloors. HPR profile 2525 can be used for all floorings up to 3.2 mm thickness and HPR 5050 for floorings with any thickness.

1.1 INSTALLATION

- 1. The floor covering is completely laid with a space from the edge of the floor covering to the wall surfaces (marked with string) of around 6 cm for the HPR 2525, and 8 cm for the HPR 5050. The adhesive for the floor covering should not be applied outside of the marked area, as this will have a detrimental effect on the successful adhesion of the material joined to it when the coving exercise is carried out.
- 2. The cove-former is glued with contact adhesive (applied on both sides). The mitre joint for inner and outer corners is cut in the mitre joint batten. A crescent shaped knife of a saw can be used for this purpose.
- 3. The adhesion of the covering strip with HPR 2525 around 16 cm wide and with HPR 5050 some 18 cm wide is carried out as well with contact adhesive (applied on both sides). At a height of about 10 cm a surrounding guide mark is made on the wall and which serves at the same time both as a laying guide line and as a limiting mark for the adhesive.
- 4. For a perfect looking joint between wall and flooring the matching edge trims showed in chapter one of Armstrong accessories can be used.
- 5. The adhesive is applied to the covering strips and then the cutting of the mitre joint is made with a metal template. The prepared covering strip is laid on the surrounding guide mark and the cove-former is pressed in. Before reaching the corner (approx. 1m), the mitre joint on the skirting board is cut with a metal template. Finally the strip can be pressed in as before into the cove-former.
- 6. The overlapping covering strip of around 1 cm on the floor covering is finally marked with the marker and cut off with the hooked knife. With this there should then be a join

of around 0.5 cm. It is important in the overall assembly that the covering strip is firmly pressed in or rubbed on.

7. The joint between the formed skirting board and the floor covering is then grooved and sealed up with weld rod.

1.2 SEALING

The corner areas can be permanently sealed

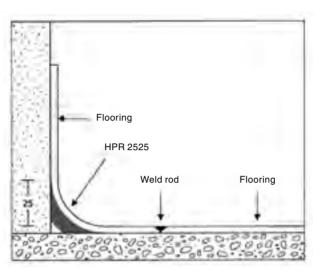
- with colour matching sealing compound
- with colour matching weld rod (linoleum)

This is carried out with a hot weld gun. After sealing any excess weld is to be removed with a flexible knife or a crescent shaped cutter, to achieve a smooth surface finish and secure join.

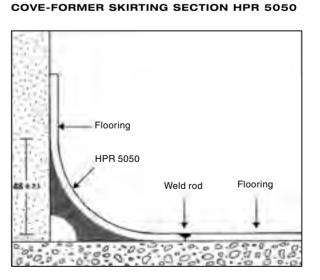
1.3 MANUFACTURER OF METAL TEMPLATES

Uzin Utz AG
Marke Wolff
Dieselstraße 19
71665 Vaihingen/Enz-Aurich
Tel. +49 (0) 7042 /9511-0
Fax +49 (0)7042 /9511-44
www.wolff-tools.com

COVE-FORMER SKIRTING SECTION HPR 2525



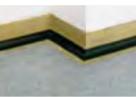
Article-No.	220095
Material	Plastic
Colour	Black
Supplied as	Carton with 10 packs of 2.5 lm



Artikel-No.	220129
Material	Plastic
Colour	Black
Sunnlied as	Carton with 10 packs of 2.5 lm



Floor covering completely glued down leaving a gap along the walls.



Base section installed



Mitreing with templ



Trimming overlapping stri



Sealing with weld ro



Sealing with weld gun / with colour matching sealing compound



The result: a technically perfect wall join.



ARMSTRONG ACCESSORIES

2. HOLLOW GROOVE SKIRTING HSLA

HSLA is a solution of flooring strengthened by an aluminum backing which will be delivered already combined from Armstrong. The HSLA is very aesthetic because of its narrow radius and also easy to clean. The hollow groove skirting HSLA can be used on any types of subfloors and as well for vinyl as for linoleum flooring up to 3.2 mm thickness.

2.1 INSTALLATION

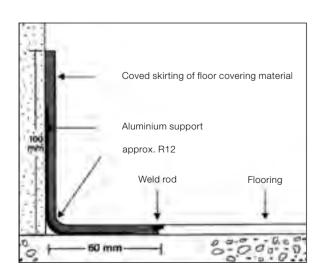
For cutting butt and mitred joints Armstrong will provide, a special electrical mitring saw, at an appropriate rental charge. For smaller projects a hand mitre saw with special holder will be sufficient. If there is no plaster skirting, we recommend painting or papering the walls before installing the coved skirting. For a perfect looking joint between wall and HSLA the matching edge trims showed in chapter one of Armstrong accessories can be used. Contact adhesive is used for glueing. The floor covering is scored with an under-and-over scriber to leave a 0.5 mm gap where it joins the section of the skirting, then trimmed with a knife. Sealing is done with weld rod.

2.2 FORM OF DELIVERY AND DIMENSIONS

Site related manufacture of a minimum of one roll 200 cm wide is required.

Skirting height: 10 cm
Width of flange: 6 cm
Length: 250 cm

Article-No. 10060 Linoleum / Vinyl





Mark walls for positioning of product.



Carry out the same procedure for floor alignment.



Apply contact adhesive up to the markings on floor and wall.



Fix cut-to-measure HSLA skirting in place.



Rub down well to achieve good transfer of adhesive.



Trim off protruding covering strips and seal



A satisfactory sound finish should now be achieved.

2.3 SEALING

The corner areas can be permanently sealed

- with colour matching sealing compound
- with colour matching weld rod (linoleum)

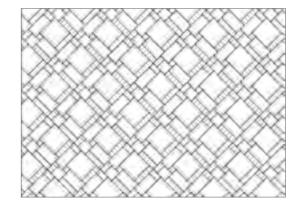
This is carried out with a hot weld gun. After sealing any excess weld is to be removed with a flexible knife or a crescent shaped cutter, to achieve a smooth surface finish and secure join.



CUSTOM SIZES

ALWAYS THE RIGHT SIZE

We would be happy to produce your own design in any standard format or even in a custom size of your choice, subject to a minimum order quantity. Just call our Service Hotline: +49 (0) 71 42 71-185



SAMPLE SERVICE

"A CHIP OFF THE OLD BLOCK"

You need samples in the original format? Not a problem! Our Customer Service Centre will be happy to deal with your request. Why not order directly by phone or via www.armstrong.eu. Your order will be delivered quickly and reliably.



INLAYS

AN EYE-CATCHING FEATURE IN ANY ROOM

Whether at a nursery, hospital, factory, office or restaurant – with inlays from Armstrong you can give full rein to your imagination. Individual design solutions such as company logos or emblems are no problem for us: Manufactured and installed with millimetre precision, they will attract attention in every building!

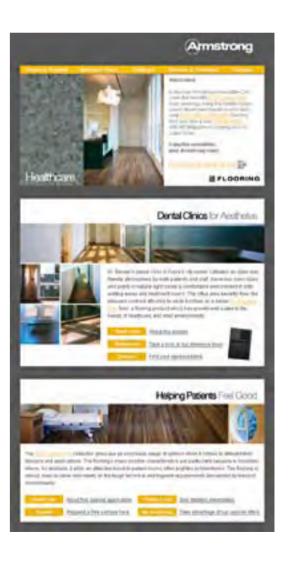




MY ARMSTRONG

SERVICE AND NEWSLETTER

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INSTALLATION RECOMMENDATIONS FOR DLW FLOORING

1. GENERAL REQUIREMENTS

To ensure your floor retains its original appearance for as long as possible, follow these basic rules:

- Make sure that, in each room, only one and the same factory batch number of floor covering is installed in the sequence of roll numbers. This is the only way to exclude deviations in shade
- ▶ The floor installer must check that colour matches once the product has been laid out. Complaints with regard to colour matching cannot be accepted once the floor covering

has been installed.

- Note that some floor coverings should be laid using a special technique alternating between lengthwise and crosswise installation
- Please note for linoleum that the natural veiling caused during the curing process of linoleum in the drying chamber is visible as a yellowish discolouration. This disappears with exposure to light.
- ▶ Reduce the amount of dirt brought into the building by means of using adequate size dirt trap zones.
- During the construction work the flooring should be kept covered to protect it.
- All flooring should be cleaned regularly for hygienic and aesthetic reasons and to maintain its value.

2. SUBFLOOR

Subfloors should be level, firm, free of cracks and dry (see also VOB Part C, DIN 18 365 [German professional association; regulations governing floor covering work]).

Dense, non-absorbent subfloors like poured asphalt or primed screeds must have an adequate thickness of levelling compound (we recommend 2 mm) applied by trowel when dispersion adhesive are used. Low-tension levelling compounds recommended by the material supplier are suitable for this. Please follow the detailed product recommendations and application instructions of material manufacturers

The following empirical values apply to the residual moisture of various screeds at normal screed thickness, i.e. not significantly above the minimum requirements of DIN 18 560:

Screeds Permitted residual moisture in CM %

Calcium sulphate screed < 0.5Cement screed ≤ 2.0

3. CONDITIONS BEFORE INSTALLING

Storing floor coverings properly is the best way to ensure that they maintain their installation characteristics. Before installation, the floor covering should be stored in a dry place which is not too hot, above all not in boiler rooms. Rolls should be stored upright. With tiles, no more than 8 cartons should be stacked on top of one another. If resilient floor coverings are stored at too low a temperature, it may be impossible to lay them correctly. Installation according to the professional standards assumes a minimum room temperature of +18 °C. However, it is not only the room temperature which is important during installation but also the temperature of the subfloor. This should be at least +15 °C or, in the case of underfloor heating, between +18 °C and +22 °C. Relative humidity should be no more than 65% (ideally 40% to 60%). These climatic conditions should be maintained for 3 days before preparatory work starts and for at least 7 days after completion. Even at suitable temperatures the floor coverings still need to be conditioned before being laid. It is therefore advisable to cut the floor covering to size the day before laying it.

4. ADHESIVE

For all DLW Flooring Armstrong recommends suitable water based adhesives. Please take note of the manufacturer's recommendations for processing.

LIST OF MANUFACTURERS:

Bostik

www.bostik.com

Mapei

www.mapei.com

WULFF

www.wulff-gmbh.de

Schönox

www.schoenox.com

UZIN UTZ

www.uzin-utz.com

Wakol

www.wakol.com

Henkel

www.thomsit.com

For further information please check the Internet www.armstrong.de/my or phone +49 (0)7142 / 71-255.

5. INSTALLATION

5.1 INSTALLATION OF RESILIENT FLOORING

The following floor coverings should be laid using a special technique alternating between lengthwise and crosswise installation: Contract Interior, Contract Interior Acoustic, Connection Corlon, Translations and Translations II Acoustic.

5.1.1 ROLLS (SHEET FLOORING)

Even if edges will be welded later, it is advisable to cut both edges of the run because only a clean-cut edge can guarantee a neat seam. The first run edge is easily cut with the strip cutter. The second edge can be cut using one of two methods:

a) In small rooms (before applying adhesive):

The underlying run is scored with the knife along the upper run edge already cut, and the surplus strip then cut off in the opposite direction using the hooked blade.

b) In large rooms (after applying adhesive):

The upper run edge is scored with the scorer or the Linocut along the run edge of the run edge already cut lying in the bed of adhesive, and the surplus strip cut off with the hooked blade

Seam incision

Make the seam incision so that the edges of the run fit closely but are not forced together. The incision should be either vertical or at a slight angle.

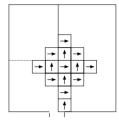
Abutted ends

Abutted ends of short runs can be cut to fit before applying adhesive. With longer runs it makes more sense to cut the abutted end after bonding the surfaces. This also applies to abutted seams.

5.1.2 TILES

Parallel installation

A parallel with the main front of the room is determined before installation, using a guide line. The distance from the wall is a multiple of the tile size less approximately 1 cm. In halls this measurement can also be taken from the deepest door threshold rather than the wall. The starting point is marked on the line determined.



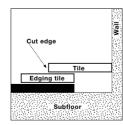
Parallel/chessboard-style installation of tiles

This starting point is determined so that at points which are particularly visible, for example the main entrance, only virtually whole tiles are laid and no narrow strips are used. Proceeding from the starting point, a row of tiles is now placed loosely along the guide line and weighed down with stacks or boxes of tiles.

In large rooms this row of tiles is left in position until the adjacent field has been laid. In small rooms it is sufficient to leave one tile as a reference.

Diagonal installation

The room is first divided up symmetrically and the axis determined using a guide line. Now determine how the tiles are to run to the walls and the main entrance. The diagonal of a square tile is the length of the side of the tile x 1.4. If small triangles now result here, the room axis is shifted sideways by a fourth of the diagonal. The same applies to the starting point. In asymmetrical rooms, a guide line is used to determine the parallel at a distance from the main front, which corresponds to a multiple of the tile diagonal less approx. 1 cm. Here too, it should be taken into account that only virtually whole tiles should be positioned at the main entrance and, between them, half-tiles, never small triangles. A double row of tiles is then placed loosely along the guide line, the first row of tiles lying with opposite corners along the guide line and the corners of the second row of tiles touching it



Cut edge of edging tiles

In large rooms a diagonal row of tiles is now laid from the starting point outwards and used as the baseline for laying. In small rooms it is sufficient to leave one tile as a reference. The edging tiles are cut in using a hook blade or utility knife after the surface has been bonded.



INSTALLATION RECOMMENDATIONS FOR DLW FLOORING

5.2 INSTALLATION OF FIBREBONDED 5.2.1 ROLLS

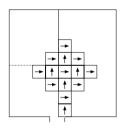
Seams must be cut before bonding takes place. Seams cut in the adhesive bed are unprofessional as they may lead to "open seams". The lengths are overlapped by 3 – 5 cm and laid out. The edges of the floor covering lying on top of one another are cut perpendicularly along a flexible steel rule in one working step using a hook or trapezoidal blade. Butting up the original edges is not considered professional installation.

5.2.2 MODULES

When dividing modules over the area to be fitted, take account of the fact that if strips are to be used along the walls, they must be at least 10 cm wide.

Laying parallel

A parallel with the main front of the room is determined before installation, using a guide line. The distance from the wall is a multiple of module size less approximately 1 cm, at least 10 cm. In halls, this measurement can also be taken from the lowest point of the threshold rather than the wall. The starting point is marked on the line determined.



Parallel/chessboard-style installation of tiles

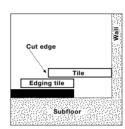
This starting point is determined so that at points which are particularly obvious, for example the main entrance, only virtually whole modules are laid and no narrow strips are used. From the starting point outwards, a row of modules is now placed loosely along the guide line and weighed down with stacks or cartons of modules.

In large rooms, this row of modules is left in position until the adjacent field has been laid. In the case of small rooms, it is enough to leave one module as a reference.

Laying diagonally

The room is first divided up symmetrically and the axis determined using a guide line. Now determine how the modules run out at the walls and the main entrance. The diagonal of a module is the length of the side of the module x 1.4. If small triangles now result here, the room axis is shifted sideways by a fourth of the diagonal. The same applies to the

starting point. In asymmetrical rooms, a guide line is used to determine the parallel at a distance from the main front which corresponds to a multiple of the module diagonal minus approx. 1 cm. Here too, it should be taken into account that only virtually whole modules should be positioned at the main entrance and, between them, half-modules but never small triangles. A double row of modules is then placed loosely along the guide line, the first row of modules having opposing corners lying on the guide line and the corners of the second row of modules touching it.



Cut edge of edging tiles

In the case of large rooms, a diagonal row of modules is now laid from the starting point outwards and used as the baseline for laying. In the case of small rooms, it is enough to leave one module as a reference. The edge modules are cut using a hook or trapezoidal blade.

6. BONDING

6.1 BONDING RESILIENT FLOORING

Bonding must always be carried out over the entire surface. Always follow the instructions of the adhesive manufacturer during the process. For the back of the floor covering to be wetted, it is essential to select the correct notch spacing, change trowel blades in good time and rub thoroughly. Continuously check that the back is wetted by pulling up the floor as you work.

6.1.1 ROLLS (SHEET FLOORING)

The rolls are pushed back to the centre of the room. Bonding begins with the centre roll. The adhesive for the second run half must reach exactly to the adhesive border of the first run half. Run halves that are cut to closely fit adjoining room fitments such as door thresholds and frames must be bonded first. The rolls are pushed into the bed of adhesive taking account of the curing/open time of the adhesive (see manufacturer's instructions) No air should be trapped in this process. Hollow raised areas can be found by knocking and remedied by stroking the trapped air outwards. The head ends are rolled in (bent towards one another). If required, seams and head ends should be weighted until they are held to the floor by the adhesive. To wet the back, carefully rub or press with the suitable roller on the tiles.

6.1.2 TILES

After applying the adhesive, start installation from the tiles laid out as a reference point or line. In large rooms we recommend laying in stages to avoid offsets. To wet the back, carefully rub or press with the suitable roller on the tiles. This procedure may need to be repeated. Scala Easy needs to be installed with tackifier (non-slip coating).

Sealing the seams

If wished DLW Flooring can be sealed.

As per Code of practice of the Technical Committee for Architectural Adhesives (TKB) in the Trade Association of the Adhesives Industry in Düsseldorf, the sealing up of joins with welding rod is always to be recommended. This is particularly applicable for areas where wet cleaning and/or basic cleaning is carried out frequently and with flooring bases that are sensitive to damp.

The welding operation is done basically after the adhesive has bonded. Depending on the kind of adhesive and the conditions in the room this can take a few days (see recommendations of the adhesive manufacturer).

Thermal seam sealing

The covering seam is milled out to a depth of 2/3 of the covering thickness using a seam miller and plane. The channel must then be cleaned carefully (vacuumed or blown out).

The seam width should be around 3.5 mm.

The weld rod can be applied with the handheld welding unit and fitted speed-welding nozzle, $d=5\ \text{mm}.$

So as not to damage the PUR finish, we recommend using speed-welding nozzles with a very narrow air outlet. Please keep that in mind also by using a welding machine.

The working temperature is for DLW Vinyl around 450 to $500\,^{\circ}$ C, for DLW Linoleum $400-450^{\circ}$ C. And the working speed approx. 4-5 m per minute for DLW Vinyl and for DLW Linoleum 2.5-3 m per minute. The projecting part of the weld rod is removed in two stages. Immediately after being applied, the still warm weld rod can be cut off using the quarter-moon knife with the shoe attached. Then after the weld rod has cooled off, the welding seam can be cut flush to the covering surface with the knife.

Cold welding for DLW Vinyl

DLW Vinyl can also be welded with cold-welding agent if required, but in this case the seam has to be trimmed close, not force-cut. Ensure that the cold welding agent does not penetrate to the underlayer of the cut seam.

Details of cold welding techniques can be obtained for example from:

Werner Müller GmbH,

PVC Kaltschweißtechnik

Rudolf-Diesel-Str. 7,

D-67227 Frankenthal

Tel. +49 (0) 62 33 - 3 79 30

Fax +49 (0) 62 33 - 3 79 320

www.mueller-pvc-naht.de

6.2 BONDING OF FIBREBONDED

Fibrebonded product from the roll is always covered with adhesive over its entire area. With modules, a tackifier (non-slip coating) should be applied to the subfloor. Always follow the instructions of the adhesive manufacturer in the process. In order for the back of the floor covering to be wetted, it is essential to select the correct notch spacing/roller, change trowel blades in good time and rub thoroughly. Continuously check that the back is wetted by lifting modules as you work. Thorough rolling (40-80 kg roller) and rerolling the entire surface, especially the seam area, is absolutely essential.

6.2.1 ROLLS

The rolls are pushed back to the centre of the room. Bonding begins with the centre roll. The adhesive for the second half of the roll must follow straight on from where the adhesive stopped on the first half of the roll. Roll halves cut to fit adjacent parts of the room snugly, e.g. thresholds and doorways, are bonded first. The rolls are pushed into the bed of adhesive taking account of the curing/open time of the adhesive (see manufacturer's instructions). No air should be trapped in this process. The head ends are rolled in (bent towards one another). If required, seams and head ends should be weighted until they are held to the floor by the adhesive.

6.2.2 MODULES

Once the non-slip coating has been applied and has cured completely, start laying the modules laid out as a guide point or line. In the case of large rooms, we recommend laying in stages in order to avoid offsets. In other words, start in the centre of the room and work towards the walls in two or four fields. Ensure that the modules are perfectly bonded to the surface when laying, i.e. there may not be any gaping between the individual elements. For the rear of the modules to adhere perfectly to the subfloor, always rub, roll or press on carefully.



INSTALLATION RECOMMENDATIONS FOR DLW FLOORING

7. SPECIAL NOTES

7.1 SPECIAL NOTES FOR RESILIENT FLOORING Office chairs

Office chairs with castors must be equipped for use on resilient floor coverings with type W castors to EN 12 529, i.e. with soft castors in the prescribed dimensions. This should be taken into account when using office chairs with castors.

Burns

Smouldering cigarette butts can cause charring on synthetic floor coverings. These floor coverings should therefore not be laid in restaurants etc. subject to this kind of problem.

Discolouration

With prolonged contact, rubber may leave indelible discoloration on all resilient floor coverings. Possible causes are: car tyres, covering materials, castors or feet on washing machines, refrigerators, prams. Such discoloration will not appear immediately, but as a consequence of the migration of substances and subsequent exposure to light. To avoid such discoloration, use castors made of polyurethane. If this is impossible, we recommend using protective plates. Bitumen-based asphalts, mineral oils, greases, coloured shoe polishes deposited on the floor covering by shoes can result in discoloration on light-coloured synthetic floor coverings in areas of heavy traffic. This is for example the case in areas which are accessed from asphalted streets, in kitchens or in offices of filling stations and car repair workshops.

Adhesive tapes

If adhesive tapes are used on the floor covering, please check compatibility with the relevant manufacturers.

7.2 SPECIAL NOTES FOR FIBREBONDED Office chairs

Office chairs with castors must be equipped for use on fibrebonded floor coverings with type H castors to EN 12 529, i.e. with hard castors in the prescribed dimensions. This should be taken into account when using office chairs.

Basic information

The special design of floor covering and fibre means that the floor covering may shrink and/or stretch depending on ambient conditions in the room. At humidities of above 70 % rh, the polyamide floor covering will stretch. At humidities of below 40 % rh, the floor covering starts to dry out and there may be shrinkage or inherent/rolling tension.

In the event of such unfavourable ambient conditions in the room, we recommend carrying out a trial bonding on site.

Tell the principal/client of your reservations and fulfil your obligations to point out problems, in particular with regard to any unfavourable climate conditions in the room.

8. CONTACT

Your contact for installation queries:

Armstrong DLW GmbH
Technischer Kundenservice
Stuttgarter Straße 75
D-74321 Bietigheim-Bissingen
service_germany@armstrong.com
Tel. +49 (0) 71 42 / 71 - 2 55
Fax +49 (0) 71 42 / 71 - 1 46
www.armstrong.eu

Installation recommendation and assambly instruction of sports flooring you may find at:

Armstrong DLW GmbH
DLW Sports Systems
Stuttgarter Straße 75
74321 Bietigheim-Bissingen
info@dlwsports.com
Tel. +49 (0) 7142 / 71 633
Fax +49 (0) 7142 / 71 799
www.dlwsports.com

For our detailed installation recommendation please check the Internet: www.armstrong.eu. You may also find advice for the special demands for the installation on

- Stairs
- Conductive installation
- Raised floors
- Sound insulation
- Wetroom flooring

INSTALLATION OF RESILIENT FLOORING-ROLLS



One of the most important preconditions for successful installation is careful planing and subfloor preparation.



Testing the moisture content of the substrate and checking temperature and relative humidity in the room.



The sheets are cut to size, marked, loosely re-rolled and placed upright to acclimatize to conditions in the room.



The loosely-laid sheets are cut in, around a radiator in this case, after ensuring the subfloor is flat and smooth.



Trace the shape of a doorpost to the lino leum with the help of a scribing bar.



The floor covering is cut along the scored contours.



Cutting the first edge of the sheet is best done with a linoleum edge cutter or strip trimmer.



The safest way of cutting a seam: mark the top sheet with an under and over scriber guided along the trimmed edge.



Trimming the top edge with a hooked



The seam should never fit too tightly. There should be a space of approx. 0.5 mm between adjoining edges when sealing.



Folding back the trimmed sheets, either half-way back in the case of rooms or lengthways in the case of corridors etc...



Adhesive must be applied in such a way that the strips of adhesive cover the entire backing of the floor-covering



Rubbing down the sheets with a rubbing iron, a device covered with needle felt...



... or with a roller which, due to the gauge of the rollers, exercises sufficient pressure even where slight irregularities occur.



down with an appropriate smoothing tool.



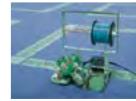
A useful tip if the trapped air cannot be forced out laterally: make a small hole with the point of a blade in a dark section of the pattern, press out the air and once again firmly rub down the covering at this point.



Milling out the joint.



Sealing with a manual hot air gun welder.



For large contract projects it is worth usen automatic welding machine.



The weld rod is trimmed in two operations, first with the trimming guide fitted, then with the bare blade.

MAINTENANCE RECOMMENDATIONS FOR RESILIENT DLW FLOORING

1. GENERAL REQUIREMENTS

To ensure your floor retains its original appearance for as long as possible, follow these basic rules:

- It is very important to make the correct selection in the case of floor coverings. Dark and patterned floor coverings are generally better in this regard than light and low-contrast colours.
- Every floor covering should be cleaned regularly for hygienic and aesthetic reasons and to maintain its value and in the case of sports floor coverings additionally for sports and protection reasons.
- Remove soiling as soon as possible as it increases wear and may also cause discoloration of the floor covering.
- Reduce the amount of dirt brought into the building by means of using adequate size dirt trap zones.
- ▶ Remove grit from the surface as it will have an abrasive effect on the surface of the flooring.
- During the construction work the flooring should be kept covered to protect it.
- Abrasives or strong solvents should not be used for cleaning.
- ▶ The cleaning frequency depends if the area is of normal or heavy use. The entrance or areas of heavy use should be cleaned more often than areas of light use.
- ▶ Every floor covering should be cleaned regularly for hygienic and aesthetic reasons and to maintain its value. Correct care, especially of sports floor coverings, also contributes to compliance with the requirements of DIN V 18032-2 and DIN EN 14904!

2. CHOICE OF CLEANING AND CARE PRODUCTS

It is important to use cleaning and care products from one system. The manufacturers listed below are given by way of example. They can be contacted with enquiries about cleaning and care products suitable for DLW Flooring. Equivalent products from other manufacturers may also be used. Observe the manufacturer's product-specific instructions for use and consult the manufacturer of the product if necessary. The requirements in accordance with DIN V 18032-2 and DIN EN 14904 must also be observed in the case of sports floors. Information about the usability and compatibility of products is the responsibility of the respective manufacturer, who will be pleased to provide further details.

Alfred Kärcher www.kaercher.com Johnson Diversey www.johnsondiversey.com Ecolab

www.ecolab.com

TANA

www.tana.de

Johannes Kiehl

www.kiehl-group.com

DREITURM

www.dreiturm.de

Wetrok

www.wetrok.com

LOBA

www.loba.de

CC-Dr. Schutz

www.cc-dr-schutz.com

Dr. Schnell

www.dr-schnell.com

BUZIL-WERK

www.buzil.com

RZ Chemie

www.rz-reinigungssysteme.de

For further information please check the Internet www.armstrong.de/my or phone +49 (0) 7142 / 71-340 and for DLW Sports phone +49 (0) 7142 / 71-633.

3. INITIAL TREATMENT ON COMPLETION OF INSTALLATION

Remove construction soiling by vacuuming or sweeping the floor covering. $% \label{eq:construction}%$

- With minor soiling wet cleaning is recommended, with a neutral or alcohol-based cleaning agent being added to the water.
- Heavy soiling can be removed either with a cleaning or a single-disc and a neutral cleaning agent. Alternatively, suitable thorough cleaners can be used. The floor covering is neutralised with clean water.

If required, the dry floor covering can be polished with a single-disc machine (speed between 300 and 1000 rpm).

Not for Safeguard floor coverings, Linodur Sport, Linopro

Choice of Pads

white: soft Pad red: medium Pad green: rough-textured Pad 1) when followed by initial treatment 2) soft brush

DLW Flooring	Linoleum LPX	Linoleum PUR	Vinyl PUR	Luxury Vinyl PUR	Imperial Texture	Safe- guards	Wetroom	Linopro Sport	Linodur / Linovation Sport
Initial cleaning / Thorough cleaning, without initial treatment	•	•	•	•	• 1)	2)	•	• •	•
Thorough cleaning followed by initial treatment	•	•	•	•	•		•	•	max.
Routine maintenance spray cleaner / Polish	•	• •	• •	•	•	•	•		

Sport and Linovation Sport. As no treatment is necessary after the handover / in-depth cleaning (except for Linodur Sport and Linovation Sport), lengthy drying is not required before further usage either. Before subsequent treatment of Linodur Sport and Linovation Sport the entire floor surface must be neutralised with clean water and be completely dry (depending on the room climate at least 12 to 24 hours).

Basically, no initial consolidation treatment is required. Significant cost savings can be made in comparison with conventional floor coverings as there is no waiting time required.

If additional surface treatment is to be applied to the floor, thorough cleaning should be carried out with a green 3M pad. After vacuuming off the accumulated dirt, thorough neutralisation should be carried out by rinsing the floor covering with clean water. Allow floor to dry off completely. This procedure prevents any problems with adhesion of the treatment product. For slip-resistant Safeguard floor coverings care actions with self-shine emulsions or dispersions is redundant, since this reduces slip resistance. Choice of pads (manufacturer: 3 M) see table

4. TREATMENT

4.1 FOR DLW FLOORING PUR OR DLW LINOLEUM LPX

Although consolidation treatment is not necessary for DLW Linoleum, Luxury Vinyl and Vinyl floor coverings with a factory-applied PUR reinforcement or DLW Linoleum LPX after the thorough cleaning on completion of installation, it is however possible if required. If a coating is required, for example in the healthcare sector, disinfectant-proof treatment products should be used. We would be pleased to inform you about the treatment products recommended by the respective manufacturer; please call tel. no. +49 (0) 71 42 / 71 340. After initial cleaning, consolidation treatment should be

carried out on the dry flooring. This reduces the effects of mechanical and discoloration processes on the floor covering surface and simplifies routine maintenance.

Linoleum LPX:

For areas where no glossy finish is required, the mopping agents or maintainers are added to the water used for routine are suitable. In order to form a protective film, the addition of between two to three times the normal concentration of mopping agent or maintainer is recommended. If higher concentrations are used, any residual film can be polished or buffed out.

Linoleum LPX, Linoleum PUR, Vinyl PUR flooring:

If a coating is required the surface should be treated with scuff-resistant, waterproof emulsions or polymer dispersions. For optical reasons satin finish should be preferred. After drying, the cleaning agents leave thin coating on the floor covering which provides a basis for routine cleaning.

Linodur Sport and Linovation Sport:

The floor covering should be treated with a highly concentrated cleaning agent before using for the first time and after every in-depth cleaning. First treat with a mop lengthwise along the linoleum widths (recommended concentration 2 I of cleaning agent to 10 I of water) and then across the widths (1 I of cleaning agent to 10 I of water). Please do not treat with coatings which clog the pores!

Linopro Sport:

We recommend that you apply a low concentration cleaning agent (approved in accordance with DIN V 18032-2) according to the manufacturer's recommendation before using for the first time. This achieves a thin care film on the PUR varnish. No treatment is necessary. Please do not apply dispersions (coatings)!



MAINTENANCE RECOMMENDATIONS FOR RES-ILIENT DLW FLOORING

5. ROUTINE MAINTENANCE

The correct procedure to be used will depend on the degree of soiling, and the requirements on hygiene and cleanliness. If the degree of soiling is low, a dry buffing regime can be used. This reduces the costs of care and is easy on the environment due to the low level of chemicals involved.

When using wet/damp methods for DLW flooring with PUR reinforcement neutral or alcohol-based cleaning agents recommended by the respective manufacturer are added to the water. On DLW Linoleum LPX please use floor maintainer. If the floor covering has had a consolidation treatment, the products used for regular cleaning have to be selected according to the surface treatment chosen.

Routine maintenance of sports floor coverings is carried out by spray wet cleaning using the same cleaning agent as for treatment in low concentration according to the manufacturer's specifications. In the first 3 weeks after treatment we recommend a slightly higher concentration to build up a protective film. DIN 77400 must be observed for school sports halls which recommends the daily removal of non-adhering and adhering dirt! Sports halls tend to have a relatively high dust development. Dust makes the floor slippery. For this reason wet cleaning should generally be preferred to dry cleaning for better bonding of the dust.

5.1 DRY CLEANING

Regular dry cleaning is carried out using a fleece cloth holder with an impregnated fleece or micro fibre cloth inserted.

5.2 WET / DAMP METHODS

Damp mopping

Light soiling involving loose or easily detached dirt is removed using damp mopping equipment with slightly dampened mop pads. Here the surface of the floor covering is completely moistened with the mopping water (add cleaning product to water according to manufacturer's instructions) without leaving a layer of water on the floor covering.

Wet mopping

With wet mopping apply sufficient water to initially leave a thin film of water on the floor covering. After this has taken effect, even stubborn dirt will have been detached and can be removed with the mop rinsed in the water and wrung out. This method does not require any machines, just a double bucket on wheels with a wringer and mop. After the cleaned surface has dried off, it can be polished if required with a

single-disc machine (300 to 1000 rpm) and a beige or red 3M pad. In areas subjected to regular wet disinfection, it is recommended adding suitable disinfectants to the water.

5.3 SPRAY-CLEANERS

Spray cleaners are used to provide local intensive treatment of stubborn stains or marks left after mopping. Combined cleaning/care products (cleaners) are sprayed onto the marked area and it is then best treated with disc machines using soft cleaning pads. Please do not use hard sponges or abrasives as this might damage the PUR reinforcement or the LPX Finish.

5.3 MECHANICAL CLEANING

For large areas there are cleaning machines which perform scrubbing (soft brush or red pad) and vacuuming in one operation. This process works in the same way to wet cleaning. A suitable mechanical cleaning agent is added to the water according to the instructions of the cleaning agent manufacturer. The vacuuming device on the machine should be set according to the instructions of the equipment manufacturer.

6. PERIODIC CLEANING

6.1 THOROUGH CLEANING

Thorough cleaning may become necessary with extremely stubborn stains or to clean off built up deposits of normal cleaning care products. This will be dependant on the usage and traffic levels of the floor covering. Thorough cleaning is carried out after application of the relevant cleaner (water with a cleaner of ph-value max. 9 – 10, depending on the flooring), with a cleaning or single-disc machine and a 3M pad or a pad suitable for the coating. After vacuuming off the accumulated dirt, the floor covering should be rinsed thoroughly with clean water and allowed to dry off completely.

Choice of pads – see table.

6.2 CLEAN RESTORATION

Basically is a care film restoration possible. Please have a look at our detailed cleaning recommendation in www. armstrong.eu.

7. SPECIAL NOTES

Discoloration

Dyed - in particular black - rubber may cause discoloration which cannot be removed if left in contact with the floor for a lengthy period. This occurs for example with car tyres, masking materials, castors and the feet on washing

machines, refrigerators, prams etc. Such discoloration will not show immediately but is caused by a reaction between the rubber and the floor covering. To avoid such discoloration, use castors made of polyurethane. If this is not possible, we recommend the use of protective plates.

Hair dyes and disinfectants with a strong discoloration effect may also damage the surface of coverings irreparably unless wiped off immediately after contact.

Invitation to tender texts

Sample texts for cleaning on handover and treatment measures are available on www.armstrong.eu or phone +49 (0) 71 42 / 71 3 40.

Office chairs / Furniture

For use on resilient floor coverings office chairs must be equipped with castors of the type W (soft) according to EN 12529.

Furniture should therefore be fitted with soft pads underneath, e.g. felt slides. To prevent damage to floor coverings occurring specifically in schools or similar heavy duty properties, it must also be ensured that the feet of the chairs are not abrasive or have sharp edges. For this reason, school furniture should have protective ends on the feet e.g. soft or polyurethane pads (floor care slides from VS-Furniture). Furniture slides should be cleaned as regularly as the floor covering itself and checked for damage, replacing where necessary.

Adhesive tapes

If adhesive tapes are used on the floor covering, please check the compatibility with the respective manufacturers.

General

These recommendations are based on our general practical experience and correspond to state-of-the-art cleaning methods where known to us at the time of publication. However, we accept no liability for their completeness, accuracy and applicability in individual cases.

As regards the individual cleaning and care processes, avoid leaving a layer of water on the floor covering with Luxury Vinyl PUR as this may adversely affect the adhesive system, or the tackifier with Luxury Vinyl Scala Easy.

Notes for sports floors

Only 2 products are required:

- A thorough cleaner for handover and in-depth cleaning
- A cleaning agent for treatment and routine maintenance

The care and cleaning products manufacturers offer compatible products. It is therefore recommended to use care and cleaning products that come from a single manufacturer.

Make sure that cleaning water does not get into the apparatus sleeves or substructure. The covers of the apparatus sleeves should be removed and cleaned if necessary when the sports hall is out of use for a longer period of time.

Contact the care product manufacturer in case of special soiling, e.g. resins (adhesive agents).

Zonal matting should be provided in entrance areas.

To avoid such discoloration, use castors made of polyurethane. If this is not possible, we recommend the use of underlay cups.

Do not use hard sponges or abrasives on Linopro Sport because the PUR finish could be damaged.

8. MACHINES AND EQUIPMENT

check the Internet: www.armstrong.eu. You may also find advice for the special demands for the cleaning of

Alfred Kärcher

Johnson Diversey www.johnsondiversey.com

Nilfisk-Advance www.nilfisk-advance.com

Ecolab www.ecolab.com

TENNANT www.tennantco.com

Cleanfix www.cleanfix.com

Columbus www.columbus-clean.com



MAINTENANCE RECOMMENDATIONS FOR RES-ILIENT DLW FLOORING

9. CLEANING DISCS AND DIRT TRAP MATS

Kampmann GmbH www.kampmann.de

ЗМ

www.3m.com

10. CONTACT

Your contact for cleaning queries:

Commercial:

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Fax +49 (0) 71 42 / 71 - 1 46
www.armstrong.eu

Sports Flooring:

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DLW Sports Systems
Stuttgarter Straße 75
74321 Bietigheim-Bissingen
info@dlwsports.com
Tel. +49 (0) 7142 71 633
Tel. +49 (0) 7142 71 799
www.dlwsports.com

For our detailed maintenance recommendation please check the Internet: www.armstrong.eu. You may also find advice for the special demands for the cleaning of

- ▶ Conductive flooring
- ▶ Surface disinfection
- Raised floors
- Safeguard flooring
- Wetroom flooring
- Dry clean restoration

Under www.dlwsports.com you will find our detailed cleaning recommendations for sports floors.

CLEANING RECOMMENDATIONS DLW FIBREBONDED

1. GENERAL FEATURES OF CLEANING

In order to make the correct selection in the case of textile floor coverings, the first thing is to take account of the factors with a direct impact on their subsequent care. Sensitivity to dirt depends among other things on colour, type of fibre and structure of the wear layer. Finally, appropriate zonal matting in entrances and hallways of the building plays a key role in preventing dirt being deposited on the floor covering.

Fibres

An important factor in the quality of a fibrebonded floor covering is the selection of fibre. Polyamide is the best type of fibre in the manufacture of fibrebonded floor coverings and has unique properties such as a high resistance to wear, pressure, rubbing, matting and soiling.

It should also be pointed out that high-end fibrebonded floor coverings have a high proportion of coarse polyamide fibres which reinforce the positive qualities mentioned above still further. If cleaning is required, correct treatment will make the fibres appear new again.

Structure

The easy-care nature of a textile floor covering also depends on its surface quality. The majority of fibrebonded floor coverings is constructed in two layers (wear layer and backing). Only the wear layer is of particular interest for cleaning. The looped structure means that a large proportion of the dirt which arises remains hidden in the depths of the fibrebonded floor covering structure.

Single-layer fibrebonded floor coverings consist primarily of fibre mixtures with differing proportions of polypropylene, polyester and polyamide. This determines the durability and life expectancy of such fibrebonded floor coverings.

2. CLEANING AGENTS

The manufacturers mentioned are by way of example. You can enquire about suitable cleaning products for DLW fibrebonded floor coverings from them. Equivalent products from other manufacturers can also be used. When processing, observe the product-specific manufacturer's conditions - consult the manufacturer of the materials if necessary. The usability and compatibility of the materials is the responsibility of the manufacturer in question who will be pleased to provide information on this.

Alfred Kärcher www.kaercher.com

Johnson Diversey www.johnsondiversey.com

DREITURM www.dreiturm.de

Ecolab www.ecolab.com

Johannes Kiehl www.buzil.com

RZ Chemie www.rz-reinigungssysteme.de

ASIX www.asix.de

CC-Dr. Schutz www.cc-dr-schutz.com

Dr. Schnell www.dr-schnell.com

Solution Glöcker www.solution-gloecker.de

BUZIL-WERK www.buzil.com

TANA www.tana.de

Wetrok www.wetrok.com



CLEANING RECOMMENDATIONS DLW FIBREBONDED

3. CLEANING ON COMPLETION OF INSTALLATION

If possible, cleaning on completion of installation should first be performed in the form of "dry cleaning" using a strong brush vacuum cleaner (with mechanically-rotating soft brush). We do not recommend "spray extraction cleaning". A suitable stain remover should be used for specific areas. Subsequent cleaning by the pad process, for example, has the following advantages: very little moisture is applied to the floor covering; no long drying times are required; the cleaned surface can be walked on again immediately after cleaning; no risk of overdrying or increased shrinkage of the floor covering; can be used as an intensive cleaning method without stopping other activities.

4. ROUTINE MAINTENANCE

Routine maintenance is the key for the cleanliness of the carpet and has a decisive influence on the intervals at which interim or thorough treatment is required. This cleaning is performed daily using high-performance brush vacuum cleaners or roller brush machines. With the assistance of the rotating, height-adjustable brush, these machines vacuum and brush dirt particles out of the full depth of the wear layer of the fibrebonded floor covering as well as loose dirt from the surface. Although vacuum-cleaning is a very simple procedure in technical terms, a few rules still need to be followed.

- ▶ The brush vacuum cleaner must be suitable for the textile floor covering; the height of the brush may need adjusting accordingly.
- The brush vacuum cleaner may not be pushed over the floor covering too quickly; otherwise the vacuum effect will be lost.
- ▶ The best method of proceeding is a double pass, first one way and then at 90 degrees over the textile floor covering to achieve the optimum cleaning effect.
- The filters should be changed in good time.

4.1 STAIN REMOVAL

Stain removal is a regular care measure for fibrebonded floor coverings in domestic applications and for routine maintenance in contract applications. Nowadays, textile fibres are made so that stain treatment is successful in almost all cases. It goes without saying that the sooner a stain can be removed, the better and more easily this can be done. If this is not the case, the substance creating the stain penetrates deep into the wear layer and can even

change the layer in chemical terms so that the stain can no longer be removed.

4.2 STEPS FOR REMOVING STAINS

- ▶ Remove solids, liquid and thickened substances with a spoon. Always work towards the centre of the stain.
- Blot up liquid using a clean white cotton cloth or kitchen paper.
- Remove the stain using a cloth or sponge and cold water, always working towards the centre of the stain. Repeat the process if necessary.
- Always blot the surface of fibrebonded floor coverings, do not rub it! Repeat the process until no more dirt adheres to the cloth.
- Clean off with clean water. Blot up any remaining moisture with a cloth or kitchen paper.
- Cover the treated area with a few sheets of kitchen paper, apply a weight and leave to dry. Finally, clean with a brush vacuum cleaner.

5. INTERIM TREATMENT

Depending on wear and the resulting degree of soiling, an interim treatment may be required at certain intervals. This is performed between thorough treatments which are performed at even greater intervals.

Interim treatment has the task of eliminating adhering dirt which has not been removed in daily cleaning with a brush vacuum cleaner. This process is restricted to more heavily-soiled areas (e. g. heavy-traffic areas in halls and entrance areas and similar). If interim treatment is performed properly, cleaning costs can be reduced and unnecessary disruption to activities in the building avoided. Interim treatment can be performed manually or using a machine. Interim treatment can be performed using either prefabricated foam or by the pad process. Initial treatment using a brush vacuum cleaner should be performed before interim treatment.

6. THOROUGH TREATMENT

Any textile floor covering requires thorough treatment at certain intervals, depending on the intensity of soiling, over and above daily routine maintenance and interim treatment. It becomes necessary when large areas of the fibrebonded floor covering become soiled. Thorough treatment achieves the best-possible removal of dirt whilst restoring original properties in use and appearance. The intervals for performing thorough treatments depend largely on correct routine maintenance and interim treatment. Thorough

treatment should be performed by a professional with state-of-the-art machines and equipment whose specialist knowledge enables him to select the appropriate cleaning process with regard to degree of soiling, carpet quality, type of installation and subfloor. The following methods are suitable for thorough (intensive) treatment:

- pad cleaning
- spray extraction
- shampooing
- b combination of the two last-mentioned methods
- lack cleaning with prefabricated foam

Soaking of moisture-sensitive subfloors, raised floors and the fibrebonded top layer should be avoided at all costs!

Important: the key factors, regardless of which method is used, are that moisture is added to the textile floor covering, it may not be walked on following wet-cleaning and it must be completely dry before it is walked on again. The drying time for the floor covering depends on the ambient conditions prevailing at the time of cleaning and on the application of liquid. If the floor covering is walked on when damp, it will soil again more quickly!

6.1 CLEANING BY THE PAD PROCESS

Following initial treatment of the entire area using a brush vacuum cleaner, the fibrebonded floor covering is "misted" with a spray solution to suit the system. Following a short time to take effect, the surface is worked evenly in overlapping passes using a disc machine with a "fibre pad" underneath it. The fibrebonded floor covering can be walked on again within a very short time.

6.2 SPRAY EXTRACTION

Following thorough initial treatment with a brush vacuum cleaner, the fibrebonded floor covering is cleaned wet using a wet-cleaning carpet cleaning machine and cleaning solution. In wet-cleaning (spray extraction), the water and cleaning agents are sprayed on and immediately vacuumed up again by a nozzle in one step. Depending on the degree of soiling, we recommend rinsing the floor covering with clean water several times in order to avoid cleaning agent residues being left behind: their resulting fixing effect may lead to renewed accumulation of dirt. Combination with a shampooing method is possible. Following spray extraction, the fibrebonded floor covering requires adequate time to dry with good ventilation. Only then should the cleaned facilities be used again. Always avoid soaking the fibrebonded floor

covering, as otherwise its adhesion to the substrate may be impaired.

6.3 SHAMPOOING

Following cleaning with a brush vacuum cleaner, shampooing is performed using a machine with one or several discs and a shampooing brush. With this cleaning process, the fibrebonded floor covering is cleaned by intensive mechanical brushing with a suitable shampoo solution. To achieve the perfect result, the shampooing brush should cover the surface in overlapping circles. The foam which forms in the process absorbs dirt and should be vacuumed up immediately by a powerful wet-cleaning carpet-cleaning machine.

It is recommended that shampoos with crystalline dry residues be used. This stops particles containing grease from being deposited on the fibres. Once the floor covering has dried, it should be vacuum-cleaned thoroughly in all directions using a brush vacuum cleaner in order to remove every trace of cleaning agent residues.

6.4 COMBINATION OF BOTH METHODS

For maximum effectiveness, we recommend a combination of shampooing and spray extraction. Following shampooing, in which mechanical processing and the chemical action release and remove particles of dirt, thorough spray extraction is performed. Rinsing out with just clean water removes particles of dirt and residues of cleaning agent. Once the floor covering is dry and has been vacuum-cleaned, the perfect surface appearance is achieved.

7. SPECIAL NOTES

Office chairs with castors must be equipped for use on textile floor coverings with type H castors to EN 12 529, i.e. with hard castors in the prescribed dimensions. This should be taken into account when using office chairs.

Underfloor heating should be set so that the fibrebonded floor covering does not change colour or any other characteristic during the cleaning step and throughout the drying phase.



CLEANING RECOMMENDATIONS DLW FIBREBONDED

8. MACHINES AND EQUIPMENT

Alfred Kärcher www.kaercher.com

Johnson Diversey www.johnsondiversey.com

Nilfisk-Advance www.nilfisk-advance.com

Ecolab www.ecolab.com

Columbus
www.columbus-clean.com

Stein & Co. www.sebo.de

9. ZONAL MATTING

3M

www.3m.com

Kampmann www.kampmann.de

10. CONTACT

Your contact for cleaning queries:

Armstrong DLW GmbH
Technischer Kundenservice
Stuttgarter Straße 75
D-74321 Bietigheim-Bissingen
service_germany@armstrong.com
Tel. +49 (0) 71 42 / 71 - 3 40
Fax +49 (0) 71 42 / 71 - 1 46
www.armstrong.eu

For our detailed maintenance recommendation please check the Internet: www.armstrong.eu. You may also find advice for the special demands raised floors.

INDEX alphabetical order of products

Cenit	р	74	@	Marmorette	р	34	®	
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Contour	р	70	@	Marmorette AcousticPlus	р	54	®	
Contour Conductive	р	83	@	Marmorette LCH	р	57	®	
Favorite	р	66	@	Medintone	р	62	®	
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Form	р	58	®	Royal	р	72	®	
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Linopol System	р	144		Strong 951/956	р	114	@	
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Linowood System	р	147	@	Strong Spot 916	р	120	@	
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THE PRODUCTION TEAM

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Key, the full story technically speaking



Classification EN 685 class 22 domestic general/medium



Classification EN 685 class 23 domestic heavy



Classification EN 685 class 31 commercial moderate



Classification EN 685 class 32 commercial general



Classification EN 685 class 33 commercial heavy



Classification EN 685 class 34 commercial very heavy



Classification EN 685 class 41 industrial moderate



Classification EN 685 class 42 industrial general



Classification EN 685 class 43 industrial heavy



PUR Eco System (High-quality surface reinforcement)



LPX Finish (Standard surface for linoleum)



Applied harmonized standards



Building Research Establishment certificate



Certified company for Quality Management System ISO 9001 and for Environmental Management System ISO 14001



DIN EN ISO 9001:2000 Certified company for Quality Management System



Brand name of fibre for fibrebonded carpets



RAL classification highly robust for fibrebonded carpets



Armstrong Floor Protect (Anti soil and stain treatment)



RAL: suitable for gym floors (area elastic flooring)



Certificate international Basketball federation



EN 425 EN 985 Suitable for castor chair continuous use



EN 1815 Antistatio



EN 1081 ISO 10965 Conductivity (<10⁹ Ohm / <10⁶ Ohm)



EN 12524 Suitable for underfloor heating



EN 1963 Stairs continuous use



EN 12825 Suitable for raised floors



EN 1399 Cigarette resistance



EN 423 Resistance to chemicals



EN 13553 Water tightness

EN 423



Staining resistance

Reaction to fire



(class B_n -s1 / C_n -s1 / E_n) **EN 1470** Luxury Classification



EN 13893 Slip resistance (dry condition)



EN 13893 Slip resistance (enhanced slip)



Homogeneous



Heterogeneous

Tiles / planks



Broadloom / sheet



Wall covering



Floor covering



German environmental certificate "Blauer Engel"



Scandinavian environmental certificate "Swan"-label



Environmental certificate for carpets in Europe



Environmental certificate for linoleum in Europe



Austrian environmental certificate for linoleum



ISO 9001 Certified company for Quality Management System ISO 9001



ISO 14001 Certified company for Environmental Management

System ISO 14001



ISO 9001 Certified company for Quality Management System ISO 9001



Certified company for Quality Management System



Certified company for Quality Management System ISO 9001 and for Environmental Management System ISO 14001



Swedish wetroom certificate for floors



Swedish wetroom certificate for walls



Easy Care



Fire certificate for ships



Certificate international Handball federation



Certificate German Volleyball federation







