marmoleum® sport

creating better environments
THE INNOVATIVE SPORTS FLOORING

For the sports and leisure sector Forbo is setting a new standard introducing the Marmoleum Sport Move range. Connected to themes like ‘streetwise’ and ‘modern toughness’ these new colours provide inspiring sports flooring design possibilities. Future-oriented, the collection continues consistently the chosen path and offers the normative required material thickness of 3.2 mm for all colours offered, next to an extensive range of 4.0 mm items. Marmoleum Sport meets the requirements of modern sports and multipurpose facilities.

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Linseed oil obtained from the seeds of the flax plant is the main component of Marmoleum Sport. Together with natural rosin, limestone and woodflour the linoleum substrate is created, which is coloured by adding natural or nature-based colour pigments.

This still flexible substrate is pressed onto a jute woven fabric and then, in large drying chambers, transforms into a tough, durable sports flooring. Using green energy, the production process of Marmoleum Sport is a very environmentally friendly process.

**89% NATURAL RAW MATERIALS - 76% RAPIDLY RENEWABLE - 50% RECYCLED CONTENT**

**High level sports flooring performance**
- Flexible and elastic
- Multi-purpose (in combination with the appropriate subfloor system)
- Slip resistant
- Durable
- Insensitive to friction heat
- Warm to touch
- Flame retardant
- Suitable for underfloor heating
- Cigarette burn resistant

**Unique sports floor offer**
- Available in both 3.2 and 4.0 mm thickness
- Marmoleum Sport Move design
- Wide range of colours that can be combined

**Natural and hygienic**
- Made from natural raw materials
- Hygienic
- Bacteriostatic
- Sustainable
The number one
Whether it's handball, indoor hockey, basketball, volleyball, indoor soccer, roller sports, dancing, athletics or gymnastics, Marmoleum Sport does it all. Also driving with heavy loads or transporting weighty exercise equipment cannot harm the linoleum, in combination with the appropriate subfloor. Even festivities like partying and dancing will leave this floor unimpressed.

The extreme durability of linoleum guarantees even after years of intensive use the ability to deliver a top performance. Best cleaning and maintenance properties ensure that the floor looks good over many years.

Floor coverings in sports and multipurpose halls have extensive requirements to meet, ranging from professional and semiprofessional sports to jamborees, festivities and school exams. Depending on the usage profile, different floor systems are used.

A sports floor construction needs to fulfill safety and sport functional features: a sports floor with Marmoleum Sport as a top coating diminishes the risk of injuries, reduces the risk on muscle fatigue and overstretching. The top layer guarantees optimal performance in terms of anti-slip and glide.

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According to the German standard DIN V 18032-2 and European EN 14904 all sport functional and technical characteristics are covered. Taking into account the range of requirements in sports halls in these standards for linoleum sport floor coverings a material thickness of 3.2 mm is recommended. 3.2 mm corresponds to the latest state of the art performance requirements and is in accordance with applicable national and European Standards.

3.2 mm poses significant technical, economic and design advantages:
- Easy application through lower weight
- Cost savings through lower material price
- Most environmentally sustainable solution
- All colours available in 3.2 mm
A VISUAL CHAMPION

Modern toughness and Streetwise
The exciting Marmoleum Sport Move collection exists of four elegant neutral colours that can be used as a solid base for multiple floors in sports areas. The modern subtle marbling of 83707 and 83711 and the matt surface create a solid and elegant base for any activity. In other words: modern toughness. The colours 83712 and 83715 are pleasantly surprising with their orange and yellow veins. It resembles with playing your favorite sport where it started: on the street.

The Marmoleum Sport collection exists of nine expressive but friendly marbled colours which cover the complete spectrum. Ranging from yellow, orange, red, greens and blues, to two complementary neutrals. The chosen colours can easily be combined on the playground, to ensure an attractive and inspiring floor is created. In the end the most dominating area in your sports hall.

Invisible welds
For Marmoleum Sport and Marmoleum Sport Move matching coloured welding rods are available for all colours. Practical and decorative, this colourful welding rod harmonizes perfectly with the Marmoleum Sport colours. Marmoweld is used to create an invisibly sealed hygienic floor.
Marmoleum Sport Move

The exciting Marmoleum Sport Move collection exists of four elegant neutral colours that can be used as a solid base for multiple floors in sports areas.
Marmoleum Sport

The 9 vivid colours have been designed based on colour patterns commonly applied in sports halls. The colours can be combined to add accented shapes in the floor for certain sports applications and are dirt concealing.
DESIGN POSSIBILITIES
Marmoleum Sport can be used as floor covering for several types of sports flooring systems according to EN 14904. The two most commonly used are area elastic and point deformation.

Area elastic (type A) sports flooring system
Marmoleum Sport is perfect for use in area elastic (sprung) floor constructions. Area-elastic floors minimise the risk of injury by spreading the force of an impact over a larger area. The combination of a sprung system with a Marmoleum Sport floor covering provides increased force reduction and vertical deformation. This makes it suitable for more demanding sports. The construction of the sprung undercarriage determines the exact performance values.

Point elastic (type P) sports flooring system
Marmoleum Sport can also be used to create point elastic flooring systems. Marmoleum Sport Elastic is a combination of Marmoleum Sport and a high-tech rubber underlay to cushion shocks directly at the point of impact. This helps to reduce the risk of repetitive stress problems associated with hard surfaces. Nor does the weight of the user determine the effectiveness of the cushioning effect, as with area elastic systems. Point elastic systems are therefore ideal for children’s play areas and lower impact sports. Important to note is that point elastic sports floors are more vulnerable for indentation issues than area elastic floors, therefore too heavy point loads should be avoided in order to ensure the longest possible lifetime of the floor.

Marmoleum Sport Elastic
Marmoleum Sport + an advanced rubber underlay = Marmoleum Sport Elastic

Marmoleum Sport Elastic is a point elastic (type P) floor covering that consists of two layers that work together to provide a perfect base for low-impact sports. The shock pad underfloor is made of recycled rubber and foam particles, bound with polyurethane. The top surface is Marmoleum Sport. The rubber underlay and Marmoleum Sport are installed separately. The underlay can be affixed directly to the subfloor, which makes it a simple and cost effective sports floor system.

ENTRANCE: A well designed entrance-flooring system will prevent dirt and moisture from being tracked in and thereby prolong the life of interior flooring and reduce cleaning, repair and overall maintenance costs. Our high performance Nuway and Coral entrance systems have been helping to provide clean and safe environments in every type of building for decades.

TOILETS AND DRESSING ROOM: The safety vinyl flooring from Forbo Flooring is tough, long lasting and extremely wear resistant. All particles are so hard that they cannot wear, providing slip resistance that lasts throughout the life of the floor.

BOARD ROOM: Today’s modern office environments with open office systems are designed for and associated with flexibility, to accommodate frequent layout changes. Choose from our broad collection textile flooring whether it is Flotex, Tessera or Westbond carpet tiles or our needlepelt collection.

TREATMENT ROOM: For this room we can offer you different flooring solutions. Our hard wearing Marmoleum ranges offer constant protection in infection control for all areas. Our Project Vinyl ranges offer an easily maintained flooring solution for all general circulation areas.

FORBO FLOORING, THE MULTI-TALENT COMPANY

Forbo Flooring Systems can enhance any interior environment by offering innovative and beautifully designed flooring products delivering long life and consistent high quality. At the same time we help to take care of the natural environment through our commitment to sustainable development and responsible raw material procurement and manufacturing processes.

We have a comprehensive product offer including linoleum, project vinyl, carpet tiles, flocked flooring and fully integrated entrance systems.
<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirement</th>
<th>Description</th>
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<tbody>
<tr>
<td>Material thickness</td>
<td>EN 1335-2 3.0 mm</td>
<td>4.0 mm</td>
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<tr>
<td>Roll width</td>
<td>EN 1335-2 2.00 m</td>
<td>2.00 m</td>
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<tr>
<td>Roll length</td>
<td>EN 1335-2 ≤ 28 m</td>
<td>≤ 28 m</td>
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<tr>
<td>Sheet thickness</td>
<td>EN 1335-1 0.15 mm</td>
<td>0.20 mm</td>
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<tr>
<td>Light reflection</td>
<td>DIN 5036-3 ≥ 0.20 (except colours 83210, 83215, 83707)</td>
<td>≥ 0.20 (except colours 83210, 83215, 83707)</td>
</tr>
<tr>
<td>Light fastness</td>
<td>EN 1335-2 ISO 4630 Method 5: blue scale minimum 6</td>
<td></td>
</tr>
<tr>
<td>Acoustical impact noise reduction</td>
<td>EN 1335-1 ISO 4918</td>
<td>46 dB</td>
</tr>
<tr>
<td>Castor chair continuous use</td>
<td>EN 1335-2 ISO 4918</td>
<td>No effect</td>
</tr>
<tr>
<td>Residual indentation</td>
<td>EN 1335-2 24040-1</td>
<td>≤ 0.15 mm</td>
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<tr>
<td>Bactericidal properties</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cigarette resistance</td>
<td>EN 1335-2</td>
<td>There is no marking of the surface by cigarettes. Marks left on linoleum as a result of shredded rod and cigarette can be removed.</td>
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<tr>
<td>Slip resistance</td>
<td>EN 1335-2 ≥ 0.30</td>
<td>≥ 0.30</td>
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<tr>
<td>Body voltage</td>
<td>EN 1335-2 ≤ 2.4 kV</td>
<td>≤ 2.4 kV</td>
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<tr>
<td>Thermal conductivity</td>
<td>EN 1335-2 ISO 6156</td>
<td>0.17 W/m² K</td>
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<tr>
<td>Life Cycle Assessment</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Marmoleum Sport meets the requirements of EN 14439</td>
<td></td>
<td></td>
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<tr>
<td>Reaction to fire</td>
<td>EN 1335-2 551</td>
<td>C5 or C1</td>
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<tr>
<td>Fire tests</td>
<td>EN 1335-2 ISO 110</td>
<td>80 or 110</td>
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<tr>
<td>Resistance to rolling load</td>
<td>EN 1335-2 551</td>
<td>Pass or Fail</td>
</tr>
<tr>
<td>Resistance to wear</td>
<td>EN 1335-2 ISO 6156</td>
<td>≤ 1000 kg</td>
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Certification from sports associations, e.g. Fiba or IHF, is only provided on the surface layer in combination with the subfloor. There are examples in the market available of complete floor systems which use Marmoleum Sport that received certificates from either Fiba, IHF or other sport associations.
Forbo Flooring Systems is part of the Forbo Group, a global leader in flooring, bonding and movement systems, and offers a full range of flooring products for both commercial and residential markets. High quality linoleum, vinyl, textile, flocked and entrance flooring products combine functionality, colour and design, offering you total flooring solutions for any environment.