

L'UNICFLEX MULTI PU Outdoor Sandwich System Athletic Track

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PU Outdoor Sandwich System Athletic Track (WA Certified)

System Description

L'unicflex MULTI involves the application of a mixture of SBR and Prepolymer binder on the floor using a specific application tool to achieve a certain thickness, then leveling its pores with PU pore fillers and finishing the process by spreading EPDM granules without allowing the elastic spreading PU-based coating to dry before marking the lines. L'unicflex MULTI is a system that has been certified for compliance with WA sports floor standards, documented by accredited laboratories in England according to DIN18045/6.

System Components and Consumption

Product	Product Info	Consumption(kg/m ²)
UNIPU 045 1K	PU Concrete Primer	0,150 kg
UNIPU 060 1K	PU Asphalt Primer	0,150 kg
UNIPU 030 1K	PU Prepolymer Binder	1,400 kg
SBR	1-4 mm SBR	6,500 kg
PU 901 SEALER 2K	PU Sealer	1,300 kg
PU 901 SL 2K	PU Elastic Selflevelling	2,200 kg
*EPDM	1-3,5 cm Colored EPDM	6,000 kg
**PU WB TOPCOAT 1K	PUD Water based UV Protective Colored/Clear Topcoat	0,300 kg
UNIPU OVERLINE 2K	PU Line Marking Paint	

Total Thickness approximately 14 mm (10 mm SBR + 4 mm EPDM)

* Indicates gross consumption. Depending on the surface and application method, the net consumption is approximately 3 kg. Any excess consumption of 3 kg/m² is recovered by sweeping or vacuuming from the surface after the application is completed.

** An optional product that enhances the UV resistance of the EPDM coating.

Technical Parameters

Tests	WA standart	DIN18035/6	+5°C	+23°C	+35°C
Vertical deformation	6-2,5	2,2	2	2,2	2,4
Force Reduction	35-50 %	38	36	38	40
Tensile Strength	>0,5 N/mm ²	0,59			
Elongation at Break	>40 %	66 %			
Slip Resistance-wet	≥47 DIR A	77			
Ball Rebound	99 %				
Water Permeability	N/A	Impermeable			
Flammability		DIN51960 Class 1			

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Surface Preparation

The concrete or asphalt surface designated as the foundation for the L'unicflex MULTI system must have completed its 30-day setting/curing period and should not exceed a moisture content of 3%. There should be no elevation differences on the concrete floor.

The concrete surface should be cleaned of dust, oil, and cement residues, and no surface hardening product that could adversely affect adhesion should be used.

Any hairline cracks, joints, or damaged areas on the concrete surface should be repaired and leveled using UNEPOX COMPOUND ST.

Another crucial aspect is that the concrete surface should be poured with precautions against any moisture or water seepage from below, potentially using effective barrier membranes, fibers, or chemical moisture barriers.

This application must be carried out by an application company approved by UNICA. Following the surface preparation procedures described above, the application should be conducted according to the application instructions provided below.

Application

Primer Application

A specially formulated single-component polyurethane, UNIPU 045 1K for concrete or UNIPU 060 1K for asphalt, is used to ensure compatibility with the subsequent coating component and the relevant substrate. The UNIPU 045/060 Primer can be applied at a rate of 0.150 kg/m²-0.200 kg/m² as per BOYTEM's instructions using an airless paint sprayer or paint roller.

SBR+Prepolymer Application

This solid coating (SBR granules + PU Binder) includes a mixture of SBR granules and UNIPU 030 1K PU Binder. Mix the SBR granules and UNIPU 030 1K using a low-speed specifically designed mixer, then apply the mixed material to the primed surface with a laying machine. Allow curing for 16-24 hours; the curing time may vary based on environmental temperature and humidity conditions.

PU 901 SEALER 2K (Pore Filling) Application

For filling SBR granule surface pores, mix UNIPU SEALER 2K uniformly with a low-speed mixer, then apply by scraping with a metal float. Consumption is approximately around 1.1-1.3 kg/m².

PU 901 SL 2K (Self-Leveling Elastic Polyurethane + EPDM) Application

After the porous filler PU 901 SEALER 2K has cured, apply PU 901 SL 2K Self-Leveling PU Elastic solid with a toothed rubber float. Sprinkle EPDM granules on the surface along with any excess. After curing, vacuum and collect excess and non-adhering EPDM. Stored EPDM can be reused under suitable conditions.

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PU WB TOPCOAT 1K Application

The application of PU WB TOPCOAT 1K provides better UV resistance and longevity to the EPDM layer, ready for use and preferably applied to the surface as a single coat with an airless paint sprayer. While an optional product, Boytem strongly recommends using it for the added performance benefits in the application.

UNIPU OVERLINE 2K (Athletic Track Line Paint)

The track line application is the most vital aspect of an athletic track installation. It should be marked by experienced applicators using appropriate equipment in accordance with the relevant standards. UNIPU OVERLINE 2K is an aliphatic-based elastic line paint that should be applied using road line painting equipment.

Cleaning and Maintenance

Floor cleaning should be done with neutral cleaning detergents using a soft mop. It is essential to wear appropriate sports shoes on the floor and avoid walking with high-heeled shoes, cleats, or suede shoes. The floor should not be soiled with substances like gum, coffee, or tea.

Cleaning

All tools should be cleaned with the specific thinner, UP-002 Thinner, and hands should only be washed with mild soap and plenty of water.

Maintenance

UNICA SFC Industrial surface cleaner is specially formulated to clean the applied system without damaging the floor. For detailed information about the product, contact the UNICA technical/sales department.

Repair

In areas requiring repair, damaged sections should be removed, and repairs should be carried out following the steps outlined in the job description above.

Key Points

- The L'unicflex MULTI floor covering system should be applied by experienced application teams.
- Application should be carried out in the temperature range of 15°C-35°C.
- Drying and curing times will be slower at lower temperatures and faster at higher temperatures.
- The maximum relative humidity during application is approximately 85%.
- Surface temperature should be above the dew point <3°C.
- Moisture content in concrete floors should be <5% by weight.
- Presence of moisture during application may lead to the formation of bubbles on the surface.
- Newly laid concrete or asphalt surfaces need to cure for at least 21-28 days.
- Before application, the surface must be cleaned of all dust, dirt, oil, and cement residues.

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- If the surface has been affected by water, wait for it to dry completely before applying.
- Any depressions, cracks, indentations, or damaged areas on the surface should be repaired and restored before application. However, surface irregularities may still be more noticeable due to the inherent unevenness of the concrete surface. This is not considered a product or application flaw.
- If there is an existing coating on the surface to be treated, conduct an adhesion and compatibility test in a suitable area before the application begins.
- Products stored outdoors and exposed to sunlight can deteriorate inside their packaging. Therefore, they should be stored in their original sealed packaging in a closed and cool storage area.
- Always mix the products with low-speed electric mixers. To eliminate the risk of incomplete mixing, transfer the mixed product to another clean container and remix if necessary.
- Do not use any thinners other than those recommended by UNICA.
- The consumption rates stated in this application document are determined under ideal surface conditions. For applications of varying thicknesses, please consult the UNICA technical department.
- Prolonged contact with chemicals such as hydraulic oil, gasoline, diesel, antifreeze, can result in staining on the surface. In the event of contact with these chemicals, they should be cleaned from the surface promptly.

Health and Safety Information

Refer to the material safety documents of the relevant products for the safe use of products and disposal of waste.

NOTE

The explanations made on this technical page are based on test evaluations and results of the product according to relevant standards and are intended to provide guidance to applicators. Since labor, weather conditions, construction, equipment used, and other variables affecting the results are entirely beyond our control, UNICA does not provide any explicit or implied warranties regarding this material. UNICA only guarantees that the material complies with the product specifications, and its sole responsibility to the buyer or user of this product is limited to the replacement value of the product in case of manufacturing defects. In no event shall UNICA be liable for any direct or incidental, special, or consequential injury, loss, or damage arising directly or indirectly from the material or work performed. UNICA is not responsible for any defects, alterations, or changes in the substrate on which the products are applied.