l'unicflex™ | OUTDOOR SPORTS SURFACES · PU BINDER

UNIPU 035 F 1K

Aliphatic UV-resistant PU binder for SBR & EPDM granules

COLOUR
Transparent amber
aliphatic · UV resistant

1.01 g/cm³	99 %	20–25 min	8 h	7 days
Mixed density (20 °C)	Solids (by weight)	Pot life (20 °C)	Surface dry (20 °C)	Full cure

Product description

UNIPU 035 F 1K is a UV-resistant, elastic, one-component, transparent, solvent-free polyurethane prepolymer used as a binder for applying SBR or EPDM granules on outdoor sports surfaces. Its aliphatic chemistry keeps light-coloured EPDM colour-stable.

Application areas

- Elastic binder for SBR and EPDM granules
- EPDM wearing layers of outdoor sports and play surfaces
- Light-coloured EPDM requiring long-lasting colour stability

Advantages

- High UV resistance
- Solvent-free
- High elasticity, durability and tear resistance
- Moisture resistant, optimum curing time
- Suitable for all weather conditions
- Easy application

Position in the system

Line marking
UNIPU OVERLINE 2K

UV topcoat (optional)
PU TOPCOAT WB 1K · 0.30 kg/m²

EPDM wearing layer — THIS PRODUCT
EPDM 1–3.5 mm + UNIPU 035 F 1K

SBR base layer
SBR 1–4 mm + UNIPU 030 1K · approx. 8 mm

Primer
UNIPU 045 1K (concrete) · UNIPU 060 1K (asphalt)

Substrate
Concrete / asphalt (min. 30 days, moisture ≤ 3 %)

L'unicflex 2S

PU walkway / jogging track system

DIN 18035-6
Tested system

System performance · DIN 18035-6

Results of the L'unicflex 2S walkway / jogging track system (8 mm SBR + 8 mm EPDM, bound with PU binder), tested in our laboratories.

40 %	1.8 mm	0.62 N/mm²	61 %	62
Force reduction	Vertical deformation	Tensile strength	Elongation at break	Slip resistance (wet)

Water permeability: impermeable · Flammability: DIN 51960 Class 1.

unica | Boytem
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Technical data (at +20 °C)

Type	**PU prepolymer**	Surface dry (20 °C)	**8 h**
Colour	**Transparent amber**	Full dry (20 °C)	**24 h**
Mixed density (20 °C)	**1.01 g/cm³**	Full cure	**7 days**
Solids (by weight)	**99 %**	Recoat interval	**min. 16 h – max. 24 h**
Application temperature	**+10 °C to +30 °C**	Shelf life	**6 months**
Pot life (20 °C)	**20–25 min**		

Chemical resistance

Diluted acids · Diluted & concentrated alkalis · Cleaning detergents · Disinfectants · Vegetable, mineral & animal oils · Fresh & salt water · Diesel & gasoline · Alcohol · Many other solvents

Application procedure

01
Surface preparation
The surface must be dry and clean, moisture max. 4 %. No surface hardeners on concrete – leave a rough finish.

02
Mixing
Condition material to +15…+25 °C. Mix with granules using a high-speed paddle mixer for 2–3 min until homogeneous.

03
Application
Pour onto the surface with an SBR/EPDM spreading machine to the desired thickness.

04
Curing
Protect from water for the first 20 h. Recoat interval min. 16 h – max. 24 h; if exceeded, abrade the surface.

Mixing ratio (by weight)

82 parts | **18 parts**

- **82 parts** — SBR granules 1–4 mm
- **18 parts** — UNIPU 035 F 1K

With EPDM granules 1–3.5 mm: 80 parts EPDM : 20 parts UNIPU 035 F 1K. Never add thinners.

Application conditions
+10 °C – +30 °C
Ambient and surface temperature. Avoid extreme heat, rain and wind.

Consumption
System dependent
Thickness and substrate conditions are determined by the applicator.

Pot life
20–25 min
At +20 °C. Do not prepare more material than can be applied within the pot life.

Important: moisture entering the drum reacts with the binder and releases CO_2 – keep drums sealed to prevent pressure build-up. Harmful if inhaled; read the SDS before use.

Points to consider

- Bring materials to site 1–2 days before use; in cold weather heat the area and condition packs at +20/+25 °C.
- Use a mechanical mixer (300–400 rpm) with a PU mixing paddle – avoid hand mixing. Never add thinners.
- Low temperatures extend pot life and curing times and increase consumption; high temperatures shorten them.
- Where day/night temperature differences are extreme, start early and finish on the same day.
- Two-component PU systems must be applied by professional, experienced teams.

Packaging

- 220 kg original sealed sheet-metal drums

Storage

- Store unopened, sealed packs in cool, dry areas.
- Protect from freezing.
- Shelf life: 6 months from production at +15…+25 °C.
- Opened packs: use within 2 weeks after thorough mixing.

Safety

- Contains no formaldehyde, asbestos or mercury.
- Harmful if inhaled; irritating to eyes, airways and skin; may cause sensitisation.
- Wear workwear, goggles, mask and gloves.
- Apply in well-ventilated areas. See the SDS.

Cleaning

- Clean tools before the material dries with UP-002 Thinner.
- Cured material can only be removed mechanically (scraping, grinding).

LEGAL NOTE

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