l'unicflex™ | DECORATIVE STONE CARPET · PU BINDER

UNIPU 040 F 1K

Aliphatic UV-resistant PU binder for stone carpet

COLOUR
Transparent
light amber · UV resistant

1.01 g/cm³	99.9 %	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 040 F 1K is a UV-resistant, flexible, one-component, transparent, solvent-free polyurethane prepolymer used as a stone carpet binder for indoor and outdoor areas.

Application areas

- Flexible binder for natural stone, quartz gravel and aggregates
- Decorative stone carpet floors – indoor and outdoor

Advantages

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

Position in the system

Stone carpet layer — THIS PRODUCT
Stone / quartz + UNIPU 040 F 1K

Substrate
Dry concrete, moisture ≤ 4 %, rough finish

Stone carpet

Decorative, permeable stone flooring

Indoor and outdoor terraces, walkways and decorative areas.

Technical data (at +20 °C)

Type	**PU prepolymer**
Colour	**Transparent light amber**
Mixed density (20 °C)	**1.01 g/cm³**
Solids (by weight)	**99.9 %**
Application temperature	**+10 °C to +30 °C**
Pot life (20 °C)	**20–25 min**

Surface dry (20 °C)	**8 h**
Full dry (20 °C)	**24 h**
Full cure	**7 days**
Recoat interval	**min. 16 h – max. 24 h**
Shelf life	**6 months**

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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 1–3 or 2–4 mm coloured stones / quartz using a high-speed paddle mixer for 2–3 min.

03
Application
Pour the homogeneous mix and finish with a trowel 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)

92 parts : **8 parts**

- **92 parts** — Quartz / stone 1–3 mm
- **8 parts** — UNIPU 040 F 1K

With quartz / stone 1–4 mm: 94 parts : 6 parts UNIPU 040 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.

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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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