

Technical Datasheet

TOPCOAT-PAS 780

Transparent, fast-curing, UV-stable polyaspartic topcoat

Description

TOPCOAT-PAS 780 is a two-component, transparent, fast-curing, aliphatic polyaspartic topcoat (cold polyurea). It is solvent-free and low-VOC. It offers the following advantages:

- superior mechanical resistance
- excellent UV stability
- high abrasion resistance
- excellent resistance to a wide range of chemicals
- high resistance to pedestrian and vehicle traffic

Certified according to EN 1504-02 and classified as a coating for surface protection of concrete. Certificate No.: 2032-CPR-10.11. CE marked.

Fields of application

TOPCOAT-PAS 780 is intended for use as a topcoat in interior or exterior flooring systems, such as:

- decorative microcement coatings
- decorative quartz broadcast systems (stone carpets)
- decorative flake broadcast systems

Suitable also for use as a protective floor coating in industries, warehouses, laboratories, showrooms, garages, etc.

It can also be used as a binder on decorative quartz broadcast systems (stone carpet floorings) or flake broadcast systems.

Technical data

1. Properties of the product in liquid form

| | |
|---------------------|-----------------------------------|
| Form: | two-component, polyaspartic resin |
| Colors: | transparent (gloss) |
| Density (A+B): | 1.07 kg/l |
| Viscosity: | 1,400 mPa·sec (at +23°C) |
| Mixing ratio (A:B): | 52.5:47.5 by weight |

Pot life

| | |
|--------|--------------|
| (10°C) | ~ 25 minutes |
| (23°C) | ~ 20 minutes |
| (30°C) | ~ 15 minutes |

2. Properties of the cured coating

| | |
|---|--|
| Tensile strength: (EN-ISO 527) | 49 N/mm ² |
| Hardness according to SHORE D: | 81 |
| Adhesion: (EN 1542) | > 3.0 N/mm ² (concrete failure) |
| Abrasion resistance: (ASTM D 4060, TABER TEST, 7 days, CS 17/1000/1000) | 78 mg |
| Abrasion resistance (EN 13892-4 (BCA)) | AR 0.5 |
| Impact resistance (EN ISO 6272): | 1.9 Nm |
| <u>Curing times (at 23°C)</u> | |
| Foot traffic: | 5 hours |
| Light traffic: | 9 hours |
| Full cure: | 4 days |

Directions for use

1. Substrate preparation

The substrate must be dry, clean, free of grease, loose particles, dust, etc.

2. Mixing

Components A (resin) and B (hardener) are packaged in two separate containers, at the correct predetermined mixing ratio by weight. The whole quantity of component B is added to component A. The two components should be mixed for about 2-3 minutes using a low speed mixer (300 rpm). It is important to thoroughly stir the mixture near the sides and bottom of the container, to achieve uniform dispersion of the hardener.

It is advised to let it rest for a few minutes after mixing, in order to help entrapped air escape.

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APPLICATION

1. As a transparent topcoat on decorative quartz or flake broadcast systems

TOPCOAT-PAS 780 is poured onto the prepared area (broadcast with quartz sand or flakes), applied with a squeegee and uniformly backrolled by use of a short or medium pile roller.

If a second layer is required, it can be applied 4-5 hours (at 23°C) after the first one.

Lower temperatures will prolong recoat time.

Consumption: 300-400 g/m² per layer, depending of the substrate.

2. As a binder and topcoat for decorative quartz or flake broadcast system

Step 1: Broadcast application

TOPCOAT-PAS 780 is poured onto the prepared area, applied with a squeegee and uniformly backrolled by use of a short or medium pile roller.

Consumption: 300-350 g/m² per layer, depending of the substrate.

Broadcast preblended decorative flakes or colored quartz aggregates into the binder to saturation.

Ensure that broadcast flakes/aggregates cover the entire surface. Allow broadcast system to cure sufficiently to be able to resist foot traffic without damaging the surface. Remove excess flakes/aggregates from the surface. Removal of excess flakes/aggregates is carried out by sweeping, followed by vacuuming, until surface is free of all loose particles and dust.

Step 2: Transparent topcoat

TOPCOAT-PAS 780 is poured onto the prepared area (broadcast with quartz sand or flakes), applied with a squeegee and uniformly backrolled by use of a short or medium pile roller.

If a second layer is required, it can be applied 4-5 hours (at 23°C) after the first one.

Lower temperatures will prolong recoat time.

Consumption: 300-400 g/m² per layer, depending of the substrate.

3. As a transparent protective topcoat on decorative microcement systems

The microcement coating is protected with the application of the aliphatic polyaspartic topcoat TOPCOAT-PAS 780.

It is ideal for interior, poorly ventilated spaces, as it is almost odorless and solvent-free.

TOPCOAT-PAS 780 is poured onto the prepared area, applied with a squeegee and uniformly backrolled by use of a short or medium pile roller.

If a second layer is required, it can be applied 4-5 hours (at 23°C) after the first one.

Lower temperatures will prolong recoat time.

Consumption: 250-350 g/m² per layer, depending of the substrate.

TOPCOAT-PAS 780 generally darkens the surface. In case this is not desired, it is recommended to use the VS-W varnish in the following way:

First, the acrylic, water-based varnish VS-W (diluted with water 1:1) is applied in one layer with a consumption of 150-200 ml/m².

After 24 hours, the TOPCOAT-PAS 780 is applied in one or two layers.

The product is poured onto the prepared area, applied with a squeegee and uniformly backrolled by use of a short or medium pile roller.

If a second layer is required, it can be applied 4-5 hours (at 23°C) after the first one.

Lower temperatures will prolong recoat time.

Consumption: 250-350 g/m² per layer, depending of the substrate.

The use of VS-W prevents intense darkening of the surface of the microcement coating, caused by TOPCOAT-PAS 780.

Tools should be cleaned with SM-28 while TOPCOAT-PAS 780 is still fresh.

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4. As a protective coating over industrial floorings

Concrete surfaces

The substrate must be completely dry, clean, free of grease, loose particles, dust, etc.

TOPCOAT-PAS 780 is poured onto the prepared area, applied with a squeegee and uniformly backrolled by use of a short or medium pile roller.

If a second layer is required, it can be applied 4-5 hours (at 23°C) after the first one.

Lower temperatures will prolong recoat time.

Consumption: 300-400 g/m² per layer, depending of the substrate.

Packaging

1 kg and 3 kg containers.

Shelf life – Storage

12 months from production date if stored in original, sealed packaging, in areas protected from humidity, frost and direct sunlight.

Recommended storage temperature: between +5°C and +35°C.

Remarks

- The workability of polyaspartic materials is affected by temperature. The ideal temperature of application is between +15°C and +25°C, for which the product obtains optimal workability and curing time. Room temperature below +15°C will extend the curing time, while temperatures above +30°C will reduce it. It is recommended to mildly preheat the product in the winter, and store the product in a cool room before application in the summer.
- Bonding between successive layers may be severely affected by moisture or dirt present between them.

- Polyaspartic layers should be protected from moisture for 4-6 hours after application. Moisture may whiten the surface or/and make it sticky. It may also disturb hardening. Faded or sticky layers in parts of the surface should be removed by grinding or milling and laid again.
- In case recoat time is longer than expected or old floors are to be overlaid again, the surface should be thoroughly cleaned and ground before applying the new layer.
- The maximum recoat window to apply an additional coat is 48 hours.
- Temperature during application and hardening of the product should be between +8°C and +35°C.
- The substrate moisture content must be below 4% and the ambient moisture below 65%.
- TOPCOAT-PAS 780 is intended for professional use only.

Volatile Organic Compounds (VOCs)

According to Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory j, type WB is 140 g/l (2010) for the ready-to-use product.

The ready-to-use product TOPCOAT-PAS 780 contains a maximum of 140 g/l VOC.

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EN 1504-02

DoP No.: TOPCOAT PAS 780 / 1872-01

Surface protection products
Coating

Permeability to CO₂: Sd > 50m

Water vapour permability: Class I (Permeable)

Capillary absorption: w < 0,1 kg/m².hr^{0,5}

Adhesion strength: ≥ 2,0 MPa

Reaction to fire: Euroclass F

Dangerous substances: comply with 5.3

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BUILDING CHEMICALS AND MORTARS

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