

## POLART FLOOR LIQUID

### MICROTOPPING FLOORING

#### GENERAL CHARACTERISTICS

**POLART is polymer-modified, colored, smooth or textured, in-situ (wet-pour) applied cast decorative, cement-based, microtopping flooring.** Possesses superior strength and can satisfy the most demanding requirements in aesthetics, style and uniqueness while giving the appearance of an antique flooring. It creates a uniform, roomy floor with the possibility of either shiny or mat final surface look, imparted by special resins used on the top. It can come in endless versions in shade, texture or design, depending on the application technique, providing at the same time high strength and durability.

- Provided in 12 distinct shades, in smooth or textured version.
- Creates high aesthetics flooring and strengths their durability and resistance.
- Resistant to mechanical stresses, wearing from friction.
- Recommended mainly for indoor surfaces in commercial, business and recreational areas like exhibition halls, galleries, hotel lobbies, restaurants, malls, shops, offices.

#### TECHNICAL DATA

Basis:	Cement(to be added for final product), polymers (resins), pigments, aggregates
Appearance:	liquid
Colors:	available in 12 shades
Viscosity:	8000-18000 mPa•s at 25°C
Bulk density (C):	1,76 ± 0,01 kg/lit
Mixing proportion (POLART:CEMENT):	70:30 by weight
Granulometry (C):	160 µm - 500 µm
Application time:	approx. 30 min at 25°C
Final strength:	after 28 days at 25°C
Compressive strength with cement: (ASTM D 695)	45 N/mm <sup>2</sup> , in 28 days at 25°C
Flexural strength with cement: (Din 1164)	8.5 N/mm <sup>2</sup> , in 28 days at 25°C
Temperature for the application and drying of the material:	12– 25°C

## SUBSTRATE REQUIREMENTS

Concrete quality:	at least C20/25
Age:	at least 30 days
Moisture content:	below 4%

## PREPARATION-APPLICATION

Applied only on dry surfaces. Protected from arising humidity and free of materials that might prevent bonding e.g. dust, loose particles, grease etc. The success in the application depends on the right preparation of the underlay and use of the material.

The substrate has to be as smooth as possible (a cement/concrete screed or something like that). Superficial expansion joints have to be provided (approximately every 15m<sup>2</sup> -in a grid of 4m X4m or something like that). Then the stages are as follows:

- Good, dry cleaning of the surface from dust and residues with vacuum cleaner and squeegees.
  - Caution must be taken so that temperature of the substrate as well as ambient air remains above 12°C during application and curing of the materials while relative environment humidity does not exceed 75%.
1. Priming with **POLEPOX PR 824** (solvent-based epoxy primer) or **POLEPOX VISCO PR 825** in a number of layers depending on the porosity of the surface
  2. Broadcasting of quartz sand (0.1-0.4mm) over the entire freshly laid surface
  3. Next day, sweeping/removing of the unstuck quartz sand and applying an optional thin layer of the acrylic primer **RITIVEX 1102**. Then, installation of **POLART** liquid mixed with cement and water will follow same day (70% POLART 30% CEMENT on weight plus 5.5-5.8kg water). Use a flat metal trowel for the application of the **POLART** mix. Move the trowel in crescents (half-circles) to create the unique POLART patterns (or whatever else you might choose). Use the trowel gently and smoothly to apply the **POLART** mix, make sure you leave behind an approximate thickness of 1.5-2mm. Then let the mix settle. During the application, cover the expansion joints with tapes and remove the tapes right after you finish laying in that part of the surface (don't let the tapes stay for long)
  4. After 3-4 days grind the dry **POLART** surface with sandpaper, gradually doing the, 180 and 220 gauge grinding. Then apply the top varnish, consisting of two different materials: a **varnish primer** first (POLART VARNISH PRIMER), applied in two layers with total consumption 100gr/m<sup>2</sup>, and then the **final top varnish (POLART VARNISH)**, again applied in two layers with total consumption approx. 100gr/m<sup>2</sup>. Each layer of each of the two materials is applied after the previous layer has set sufficiently (darkening the surface first before drying). Time lapse between successive layers should be around 4-5 hours in 20 degrees, increasing as the temperature drops. For the application of the varnish primer and the final top varnish, we use a special tool (kind of brush). This two-material top varnish technique **leaves the surface of POLART unaffected (relatively mat and not darker)**. Still, If you want you can apply **POLFLOOR PU 807** (shiny polyurethane varnish) as final coating in two layers (250-300gr/m<sup>2</sup> total consumption). **POLFLOOR PU 807** intensifies the POLART surface, making it a bit darker and glossy.

If the POLART mixture has started setting it cannot be used or re-diluted with water.

Application time tolerance decreases with the increase of temperature.

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## CONSUMPTION

Approx. 1,8 kg/m<sup>2</sup> /mm.

## APPLICATION TOOLS

Flat metal trowel. Tools should be cleaned with **WATER** immediately after use.

## PACKAGING

Supplied in drums of 15 kg.

## STORAGE

1 year in original unopened containers in dry places with minimum temperature 5°C and maximum temperature 30°C, protected from moisture and heat.

## REMARKS

- Working time of **POLART** decreases when ambient temperature rises.
- Do not mix or apply unless surface, air and material temperatures are over 12°C during the next 24 hours.
- Prolonged storage of partially used containers must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.
- Do not apply to floors if there is moisture in the subfloor drive or hydrostatic pressure. Prior precautions measurements of humidity with special device are suggested.
- In case old floors are going to be re-laid or a long period of time (12 hours for summer and 24 hours for winter) interferes between successive layers, the surface must be thoroughly cleaned and grinded prior to application of a new layer.
- **POLART FLOOR** will yellow upon prolonged exposure to sunlight or high-intensity artificial lights. A urethane topcoat is highly recommended for color stability.
- After hardening, **POLART** is completely safe for health.

## CAUTION

The application must take place in well-aired places using protective gloves. Skin or eye contact must be avoided, otherwise wash carefully with soap and water.

**For more information consult the material safety data sheet.**

The information given here is true, represents our best knowledge and is based not only on laboratory work, but also on field experience. However, because of numerous factors affecting results we offer this information without any guarantee and no patent liability is assumed. For additional information or questions, contact the technical department of KDF LTD.

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