BERLINGPaints

PU Resin for screed

High quality colorless
polyurethane water-soluble resin

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Packing: 10kg

Description

High quality colorless polyurethane water-soluble resin for the creation of decorative quartz coatings.

Product Characteristics

- New technology polyurethane water-soluble resins.
- High adhesion
- Great mechanical strength.
- High resistance to weather conditions and to solar radiation.
- High elasticity and mechanical strength.
- Long life.
- Excellent decorative effect.
- Wide range of decorative applications.

Shades

Available in colorless and it is not tinted. The shade of the final coating is achieved by the use of colored quartz admixtures. Choosing from a wide range of colored quartz can achieve many shades

Application conditions

The application is carried out at an ambient temperature of 12°C to 30 °C and a maximum relative humidity of 75%.

Surface preparation

The surface to be coated should be clean, dry and free of loose materials. Surface humidity rate should not exceed 3.5%. New cementitious surfaces must have matured sufficiently before applying the coating. On highly absorbent surfaces, the appropriate primer should first be applied in order to achieve a reduction in absorbency. As a primer, polyurethane resin without quartz aggregates can also be used after thinning with 20-30% by volume with water. On non-absorbent surfaces, e.g. tile, marble, mosaic etc. the product quartz tiles is applied as a primer, specialized for non-absorbent surfaces. The surface to be coated must be stable and level (concrete, cement, tile, etc.). At external floors substrate's waterproofing is required.

Technical characteristics

Specific gravity	1,03 ± 0,02 gr/ cm3 (ISO 2811)
Viscosity	70-80 K.U.
pH	7,5-8,8 ± 0.2
Solvent	Water
Coverage	The coverage differs depending on the type of surface, the way of application, the quartz ratio and the granulometry. The coating thickness differs depending on quartz granulometry between 1,5 – 2,5 mm. Suggested quartz granules for very good decorative results are 0.6 - 1.2 mm, and 1,2- 1,8 mm. Depending on the granulometry of the quartz, the suggested quartz resin blending ratio ranges from 1lt resin with 3 to 4 kg of quartz. As indicated in the table below, the consumption of the coating for different granulometries as well as the expected thickness per coat.

Granule size	0,6 - 1,2	1,2- 1,8
Quartz quantity in kilograms	3	3,5
Resin quantity in litters	1	1
Consumption	4,0- 5,0 kg/m^2	5,0-6,0 kg/m^2
Thickness	1,5-2mm/ coat	2,0-2,5 mm/coat

Calculations example
An example of calculating the required amount of materials .
When using 0.6-1.2mm quartz, I will need 5kg of mixture per square meter, resulting from mixing 1.25 liters of resin and 3.75kg of quartz sand.
When using 1.2-1.8mm quartz, I will need 6kg of mixture per square meter, which will result from mixing 1.35lt of resin and 4.65kg of quartz sand.
In case of larger quartz grains, consumption varies and increases.

Application

The application of the material should be done by metal spatulas. For application on vertical surfaces a special thickener should be added in resin before adding quartz to facilitate the application.

Drying time

Touch dry after 4 to 6 hours depending on weather conditions and the thickness of the coating. In depth after 1 to 2 days (These times may be prolonged depending on temperature and humidity). The material develops full strengths after 14 days.

Recoat

After at least 24 hours and depending on the thickness of the coating, the temperature and humidity of the room environment. After the final coating, a 2-layer protective coating(varnish) should be applied, such as PU Varnish. For surfaces permanently exposed to water it is recommended to use Berocyd 111 epoxy varnish in two coats. To make the final coating with the protective varnish, the quartz coating should have dried well (thoroughly) and in no case before 24 hours under normal temperature and humidity conditions.

Storage

Keep containers tightly closed and protect from frost. For long-term storage, it is best to keep the product indoors in order to avoid exposure to very low or high temperatures as well as to high humidity conditions.

All the above information is based on laboratory tests and long-term experience of the company's scientific personnel. Product quality is guaranteed by our operational system, which is based on the requirements of ISO 9001, ISO 14001 and OHSAS 18001 Standards and EMAS Regulation. As producers we don't take any responsibility for any damage that may caused in cases that the product hasn't been used for the appropriate application and according to the application instructions.

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