# VARIOPOX UNIGEL

## DESCRIPTION

Variopox Unigel is a thixotropic paste based on solvent free epoxy resins.

## PRINCIPAL CHARACTERISTICS

- Improves rheology of epoxy primers, coatings, mortars and trowel floorings;
- Reduces sagging on vertical surfaces;
- Improves the application properties of trowel floorings;
- Suitable as sealing compound for floorings such as epoxy stone carpets (but is not a waterproofing);
- By adding fillers such as talcum or micro-balloons an easy to apply epoxy filler can be formulated;
- No shrinkage, no solvents;
- UV stable when combined with Variopox Topgel hardener.

## COLOURS AND GLOSS

Transparent - Semi gloss

## BASIS PROPERTIES (AT 23 °C AND 50 % R.H.)

| | | |
|---|---|---|
| Density | : | approx. 1,2 g/cm$^3$ |
| Solid content | : | approx. 100 % (volume) |
| Epoxy equivalent weight (E.E.W.) | : | approx. 196 |
| Dust dry after | : | approx. 4 hours (when combined with Variopox Topgel hardener) |
| Resistant to foot traffic after | : | approx. 18 hours (when combined with Variopox Topgel hardener) |
| Full cure after | : | approx. 2 days (when combined with Variopox Topgel hardener) |
| Recoating interval | : | min. 24 hours, see additional information<br>max. unlimited, provided clean and dry |
| Shelf life | : | separate components, stored cool and dry in original packaging, minimum 24 months |
| Flash point (DIN53213) | : | base component >100 °C<br>hardener component > 64 °C |

## SPREADING RATE

Depending on application : to adjust viscosity and rheology replace approx. 10 to 20 % by weight of the base resin with Variopox Unigel

The practical spreading rate depends on a number of variables, such as: shape and size of object to be painted, the condition and profile of the substrate, the method of application, climatologic conditions and skill of labour.

## SUBSTRATE CONDITION AND TEMPERATURE

All substrates : clean and dry, in good condition, free from any contamination, loose particles and other foreign matter, sanded with grit paper P60 – 80 and treated with Double Coat Degreaser.

During application and curing a minimum temperature of 15 °C is allowed. The temperature of the substrate should be minimum 3 °C above dew point.

## INSTRUCTIONS FOR USE

Before use, mix base and hardener components thoroughly.

Mixing ratio : 67,0 base : 33,0 hardener (by weight)
Do not prepare more material than can be applied within the pot life of the mixture.

Induction time : none
Pot life : 10 minutes at 25 °C
20 minutes at 20 °C
30 minutes at 15 °C

Application with:

| | Trowel |
|---|---|
| Type of thinner | n.a. |
| % of thinner | |
| Nozzle orifice | n.a. |
| Nozzle pressure | n.a. |
| Cleaning with | Double Coat Degreaser, Double Coat Brushthinner |

Do not add solvents or thinners to Variopox Unigel.

## ADDITIONAL INFORMATION

- Recoating and curing of Variopox Unigel

| | 15 °C | 20 °C | 25 °C |
|---|---|---|---|
| Minimum | 36 hours | 24 hours | 24 hours |
| Maximum | unlimited | unlimited | unlimited |
| Full cure after | 4 days | 2 days | 2 days |

- Pot life
  Do not continue application when the pot life is about to end. As the reaction between base and hardener has progressed, a poor adhesion will be the result.

- Hardener
  Variopox Unigel may be cured with common solvent free epoxy hardeners. Only in combination with Variopox Topgel hardener Variopox Unigel will be UV stable.

- Determination of the required quantity of hardener
  Epoxy resins cure by chemical reaction with the hardener component. To ensure complete curing, the correct quantity of harder should be added to the mixture of epoxy resin and Variopox Unigel. An incomplete curing may result in various film defects. The quantity of hardener may be calculated using the epoxy equivalent weight (E.E.W.) and the hardener equivalent weight (H.E.Q.). The ratio between both components is correct when the total quantity of epoxy equivalents is equal to the total quantity of hardener equivalents.
  The required quantity of hardener necessary for any amount of Variopox Unigel can be calculated with following formulation:

$$QTY_{hardener} = \frac{QTY_{Epoxy\ Gel} \times HEQ_{hardener}}{EEW_{Variopox\ Unigel}}$$

Whereby:

$QTY_{hardener}$ required quantity by weight of hardener;
$QTY_{Variopox\ Unigel}$ the quantity by weight of Variopox Unigel;
$HEQ_{hardener}$ equivalent weight of the hardener (this value may be obtained from the supplier of the hardener);

$EEW_{Variopox\ Unigel}$ the equivalent weight of the Variopox Unigel.

Example:
500 gram Variopox Unigel is cured with a hardener. According the technical information from the supplier of the hardener, the H.E.Q. is 120. The E.E.W. of Variopox Unigel is 196. The quantity of hardener required is 500 x 120 : 196 – 306 gram hardener.

## SAFETY INFORMATION

See the corresponding Material Safety Data Sheet for detailed instructions on safety, disposal and health.

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