

Binder TP E30

Description

Binder TP E30 is a multifunctional two component epoxy system that can be used as a binder for stone and marble carpets and broadcast systems.

This binder cured without granulates exhibits an excellent surface, consequently floors bonded with this binder will show a high gloss finish.

The Binder TP E30 system is specially formulated by Quartzline making it different to other more traditional systems, the two components are formulated to match strict specifications.

The Binder TP E30 B-Component is different from many other standard grade hardeners. This hardener needs only 30 parts to 100 parts of resin instead of the normal 50 to 100 for standard grade binder systems.

This results in high transparency and a spotless high gloss finish, low sensitivity to carbamation low yellowing tendency compared to traditional systems and optimal workability.

Due to the viscosity of the system there will be a good balance between sufficient binder between the stones and the drip off to the substrate to ensure a good bonding.

Form

Binder TP E30 A-Component: Clear, transparent liquid.
Binder TP E30 B-Component: Clear to slightly yellow, transparent liquid.

Packaging

Binder TP E30 A-Component: 20 kg bucket, 200 kg Barrel and 1000 kg IBC
Binder TP E30 B-Component: 15 kg bucket, 180 kg Barrel and 1000 kg IBC

Also available in specially prepared 4 kg sets. These sets are specially made to be used with 50 kg of coloured quartz or marble granulates.

Shelf life/storage

Up to 6 months after production date if kept in the original, sealed, unopened and undamaged packaging and stored dry between +10 °C and +30 °C.

Properties

| | |
|---|-----------------------|
| Near solvent free | |
| Low viscosity | |
| High bonding strength | |
| Alkylphenol free | |
| Easy application | |
| Electrical conductivity | >100 GΩ |
| Viscosity ¹ (mPa.s) | 1000 – 1300 |
| Density ² (g/cm ³) | 1,10 |
| Shore Hardness ³ | > D80 |
| Perzos hardness (s) @ 2 days | > 150 |
| Perzos hardness (s) @ 7 days | > 250 |
| Adhesive strength ⁴ (N/mm ²) | > 1,5 (Betonbreuk) |
| Electrical conductivity | Isolerend, > 100 GΩ |
| Reaction to fire | Bfl – s1 |

¹ = Brookfield, LV3, 30 RPM, @ 23°C binder

² = ISO 2811-1, + 23°C/50% R.H binder

³ = DIN 53505, 14 days / + 23°C / 50% R.H binder

⁴ = EN 4624, 14 days / + 23 °C / 50% R.H

Mixing

Mixing ratio: Binder TP E30 A-Component : Binder TP E30 B-Component
= 100 : 30 (by weight)

Add part B to part A and mix slowly for two minutes until the mixture turns from a turbid to a completely clear liquid.

Mixing is preferably done with a power mixer on low speed, from 300 to 400 RPM, with a Quartzline WK 90 mixer paddle.

Pour the mixed binder onto the aggregates and mix until a complete homogenous mixture occurs. This is preferably done with a hand mixer in combination with a WK200 spindle. A forced action mixer may also be used)

Mix thoroughly and make sure the mixture is homogenous.

System construction

Primer for porous substrates:

Quartzline "Primer BHH" or Primer Universal.

Primer for non-porous substrates:

Quartzline Primer GW is used on non-absorbent substrates. This primer has excellent physical adhesion, especially for ceramic tiles.

Wearing course:

The following Quartzline floor systems can be used:

- Stone carpets bonded with Resin TP and Hardener E30
- Marble carpets bonded with Resin TP and Hardener E30
- Broadcast systems

Topcoat:

Stone carpets -> Topper 12
Broadcast systems -> Coating PU MG

The Quartzline Binder TP E30 is part of the following systems:



Stone

- **Quartzline Stone Indoor**



Marble

- **Quartzline Marble Indoor**

Consumption

Binder TP E30 for stone carpets 8% on weight of quartz or marble.

| Quantity of dry quartz or marble | 25 kg | 50 kg | 75 kg | 100 kg |
|----------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 8% Binder | A = 1,54 kg B = 0,46 kg | A = 3,08 kg B = 0,92 kg | A = 4,62 kg B = 1,38 kg | A = 6,15 kg B = 1,85 kg |

Substrate preparation

All dust, loose and friable material must be fully removed from all surfaces before applying the product, preferably using a brush and/or industrial vacuum cleaner.

The substrate must be clean and dry and free of dirt, oil, grease and any other impurities or contaminants.

The substrate must be sound and sufficiently compression resistant (at least 25 N/mm²), with a minimum adhesive strength of 1,5 N/mm².

If the epoxy surface is more than 48 hours old, always perform a preliminary adhesion test.

Application conditions

Substrate temperature: Minimum 10°C, maximum +30 °C

Ambient temperature: Minimum 12°C, maximum +30 °C

Relative air humidity: Maximum 70% R.H.

Dew point: Beware of condensation!

The temperature of the substrate and non-hardened material must be at least 3°C higher than the dew point to reduce the risk of condensation, efflorescence or stickiness (carbamate formation) on the floor finish.

Remark: Low temperatures and high air humidity increase the risk of efflorescence or carbamate formation.

Application

Carpets:

Spread onto the floor and level it with a trowel.

To check the floor for levelness, please use a 1000 Watt floodlight lamp

| | |
|-------------------------|------------|
| Processing time @ 20 °C | 15 minutes |
| Foot traffic @ 20 °C | 2 days |
| Fully Cured @ 20 °C | 7 days |

Check the R.H. and dew point before application.

Remarks

Do not apply the Quartzline flooring systems on substrates with rising moisture.

After application, all Quartzline floors must be protected from damp, condensation and water for at least 24 hours.

Mixed materials must be processed immediately as workability will be reduced when pot-life expires.

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.

If heating is required do not use gas, oil, paraffin or other fossil fuel heaters. These produce large quantities of both CO² and water vapour which may adversely affect the finish.

For heating, only use electrically powered warm air blower systems.

Do not use any underfloor heating during application or for the first 48 hours, after this period you may increase the temperature gradually.

Cleaning/maintenance

To maintain the appearance of the floor after application, the flooring system must be kept clean and all spillages removed immediately.

The floor must be cleaned regularly using a rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques etc.

Always use suitable detergents and waxes.

Clean the floor with tepid water. Never use hot water (warmer than 40 °C).

Value base

All technical data stated in this technical data sheet is based on laboratory tests.

Actual measured data may vary due to circumstances beyond our control.

Health and safety information

For information and advice on safety handling, storage and disposal of chemical products, users should refer to the most recent material safety data sheet containing physical, ecological, toxicological and other safety related data.

Legal notes

This information, and in particular the recommendations related to the application and end use of Quartzline products, is provided in good faith based on our current knowledge and experience of the products. It is valid for products that are correctly stored, treated and applied under normal conditions in accordance with Quartzline's recommendations.

In practice, differences in materials, substrates and actual on-site conditions are such that no warranty in respect of merchantability or of suitability for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.

The user of the products must test the product's suitability for the intended application and purpose. Quartzline reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery.

Users must always refer to the most recent issue of the technical data sheet for the product concerned, copies of which will be supplied on request.