

Topcoat E

Description

Topcoat E is a thixotropic, solvent free, two component epoxy that is used as a sealant for resin bonded mortar floorings like the Quartzline Mortar D or Mortar N system.

Topcoat E has a high gloss transparent appearance and is suitable for decorative as well as industrial applications.

Applying two layers in one day is possible.

Properties

Approx. 100% solid, solvent-free

High viscosity

Good UV resistance, contains UV absorbers

Easily processable

Easy application

Alkylphenol-free hardener

Excellent scratch resistance

Density¹ (g/cm³) Primer 1,07

Persoz hardness, sec +/- 200

Electrical conduction >100 GΩ

Viscosity² (mPa.s) Scratch coat 10000

Adhesive strength³ (N/mm²) > 1.5 (Concrete fracture)

Shore hardness⁴ > D80

¹ = EN 12190, 14 days/ + 23 °C/50% R.H

² = Brookfield, LV4, 30 RPM, @ 23°C

³ = EN 4624, 14 days/ + 23 °C/50% R.H

⁴ = DIN 53505, 14 days/ + 23°C/50% R.H

Wear resistance according to Taber:

CS10, 10N load, 0 - 500 Cycles = +/- 25mg

CS10, 10N load, 500 - 1000 Cycles = +/- 12,5 mg → Total after 1000 Cycles is +/- 37,5 mg

CS10, 10N load, 1000 - 1500 Cycles = +/- 7,5 mg → Total after 1500 Cycles is +/- 45 mg

CS17, 10N load, 0 - 500 Cycles = +/- 45 mg

CS17, 10N load, 500 - 1000 Cycles = +/- 30 mg → Total after 1000 Cycles is +/- 75 mg

CS17, 10N load, 1000 - 1500 Cycles = +/- 25 mg → Total after 1500 Cycles is +/- 100 mg

Form

Component A: Liquid, White

Component B: Liquid, clear transparent to slightly yellow.

Packaging

Component A: 2,3 kg, 4,6 kg and 20 kg bucket

Component B: 1,0 kg, 2,0 kg and 8,6 kg bucket

Sets: 3,3 kg, 6,6 kg and 28,6 kg

Shelf life / Storage

Up to 12 months after the production date if stored correctly in the original, sealed, unopened and undamaged packaging and stored dry between +5°C and +30°C.

Mixing

Mixing ratio: Component A: Component B = 70: 30 (parts by weight)

Add part B to part A and mix continuously for two minutes until a uniform mixture has been achieved.

To ensure thorough mixing, pour the materials into a clean second container and mix again for one minute to achieve an even consistency.

To minimize air bubbles, avoid over mixing.

Mixing is preferably done with a power mixer on low speed, from 300 to 400 RPM, with a Quartzline WK90 mixer paddle.

System construction

Primer for porous substrates:

On porous surfaces use Quartzline "Primer BHH" which will penetrate the substrate and ensure a strong mechanical bond.

In dry areas Quartzline Primer Universal can also be used.

Primer for non-porous substrates:

Quartzline Primer GW should be used on non-absorbent substrates. This primer has very good physical adhesion, especially for ceramic tiles.

Wearing course: The following Quartzline Mortar / Trowel flooring systems can be used:

- Quartzline Mortar

Topcoat: **Quartzline Topcoat E**

Extra topcoat: For extra wear resistance, UV protection and a matt or silk finish, Coating PU MG Matt or Silk can be used.

The Quartzline Topcoat E is part of the following systems:

Mortar-Line Trowel

Consumption

Mortar system	Product	usage
Primer	1x Primer BHH	125 - 250 g/m ²
	1x Primer GW	100 - 150 gr/m ²
	1x Primer Universal	200 - 250 gr/m ²
Wearing course 6 mm thickness	Mortar	~ 11400 g/m ²
Sealer	Topcoat E layer 1	275 - 325 g/m²
	Topcoat E layer 2	125 - 175 g/m²
Topcoat (optional)	Coating PU MG silk or matt	150 - 175 g/m ²

Substrate preparation

The substrate must be sound and of sufficient compressive strength (minimum 25 N / mm²), with a minimum pull-off strength of 1,5 N/mm².

The surface must be clean, dry and free of all contaminants such as dirt, oil, grease, previous coatings and surface treatments.

If the surface is older than 48 hours, always perform a preliminary adhesion test.

Application conditions

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

Ambient temperature: Minimum 10°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

Processing time @ 20 °C	15 minutes
Touch dry @ 20 °C	5 hours
Foot traffic @ 20 °C	24 hours
Light traffic @ 20 °C	48 hours
Fully cured @ 20 °C	7 days

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

The Quartzline Topcoat E two component epoxy has been specially developed as a sealer for the Quartzline Mortar D system, this system must be sealed with **two** layers of topcoat E.

Apply the first layer onto the mortar using a rubber squeegee, making sure to cover the complete floor area **twice** by using a left to right and back to left application motion. Then roll the Topcoat E with a nylon roller (preferably as wide as possible). For best results work form wall to wall in long continuous lanes. For the edges of the floor use a 10cm nylon roller.

Work as evenly and quickly as possible to get the best possible result. Wearing spiked shoes while working is a necessity, it facilitates the application but make sure you do not damage the substrate.

The second layer can be applied within 1,5 to 3 hours after the first layer, depending on the climatologic circumstances. Firstly, you will need to examine the first layer to see how far the reaction process is at that time. It should not be completely fluid but also not too hard to receive the second layer.

This can be tested wearing a latex or vinyl glove and running your fingers carefully through the first layer. If you feel no resistance at all you must wait longer, when you feel a slight resistance and stickiness it is ready to receive the second layer.

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 floor 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 the 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

The 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.

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