

Binder 2K PU Vertical

Description

Quartzline Binder 2K PU Vertical is a two component, non-yellowing polyurethane, extremely suitable for the vertical application of marble and decorative stones to walls and skirting boards.

This binder is renowned for its incredibly high UV resistance, flexible properties and beautiful high gloss finish.

The thixotropic properties in Quartzline Binder 2K PU Vertical ensure a perfect balance between substrate adhesion and stone binding, making this the ideal product for stairs, skirting boards and walls.

Due to its durability and resistance Binder 2K PU Vertical has a broader scope of application than Binder 1K AC Vertical. Binder 2K PU Vertical is well equipped to deal with extreme weather conditions such as ice, snow and crushed rock salt gritting.

Form

Component A: liquid, cloudy, light yellow
Component B : liquid, clear

Packaging

Component A: 1,85 kg bucket
Component B: 1,65 kg bottle

Sets: 3,5 kg

Shelf life/storage

Up to 6 months after production date if kept in the original, sealed, unopened and undamaged packaging and stored dry between +5 °C and +30 °C.

Mixing

Mixing ratio: Component A : Component B = 53 : 47 (by weight)

For use as a binder:

Add the complete contents of component B to component A and mix on a low speed until a homogenous mixture has been achieved. Then add this mixture to the marble or decorative stones and mix again making sure that no lumps of binder are left in the mixture. A high concentration of binder will react with the polyurethane and cause foaming if lumps are not extracted.

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

Properties

Solvent free

UV resistant

Flexible and elastic

Suitable for use outdoors

Non-allergenic

Viscosity ¹ (mPa.s)

Thixotropic

Shore Hardness ²

> D60

¹ = Brookfield, LV4, 30 RPM, @ 23°C

² = DIN 53505, 14 days/ + 23°C / 50% R.H

Mixing the binder with the stones or marble is preferably done using a Quartzline cement mixing bucket and a mixer with a Quartzline WK200 spindle.

For use as a primer:

Add the complete contents of component B to component A and mix on a low speed until a homogenous mixture has been achieved. Pour the mixture into a second clean container and mix again for one minute preferably using a power mixer on a low speed, 300 – 400 RPM with a Quartzline WK90 mixer paddle.

System construction

Primer: Always use Binder 2K PU Vertical to create an adhesive layer and make sure to work wet on wet.

Finishing: The following Quartzline systems may be used:

- Decorative stones with Binder 2K PU Vertical
- Marble with Binder 2K PU Vertical

Consumption:

Use 3,5 kg of Quartzline Binder 2K PU Vertical to 50 kg of decorative stones or marble,

Decorative stone consumption 2-3 with Binder 2K PU Vertical is circa 13 kg/m²

Decorative stone consumption 1-2 with Binder 2K PU Vertical is circa 11 kg/m²

Marble consumption 1-4 with Binder 2K PU Vertical is circa 14 kg/m²

Marble consumption 4-8 with Binder 2K PU Vertical is circa 17 kg/m²

Primer consumption is 500 - 1000 g/m². ALWAYS apply this adhesive layer before the application of the vertical bonded marble- or stone-carpet.

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

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

When in doubt always perform a preliminary adhesion test.

Substrate preparation

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.

Weak concrete and loose cementitious levelling must be removed and surface damage such as blowholes and voids must be repaired with Quartzline Epoxygel and then primed again. Do not use polyester based filler as this will reduce adhesion dramatically.

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

Application conditions

Substrate temperature: Minimum 15°C, maximum +25°C

Ambient temperature: Minimum 15°C, maximum +25°C

Moisture content substrate: < 4% moisture
Perform a carbide test.

Relative air humidity: Maximum 60% 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.

To preserve viscosity and avoid a thixotropic effect the maximum temperature must not be too high as this will affect the floor strength.

Application

Most important is to make sure there is an good thick adhesive layer as a primer.

After following the mixing process accurately and priming the substrate it is important to spread the material evenly using a floor trowel. Use clean water in a fine plant spray bottle to prevent the material from sticking to the trowel but be aware that too much water could cause foaming.

Processing time @ 20 °C	25 minutes
Foot traffic @ 20 °C	1 day
Fully Cured @ 20 °C	7 days

Check the substrate temperature, R.H. and dew point before application.

Remarks

For outdoor use protect from light rain for at least 5 hours and regular/heavy rain at least 8 hours.

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

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

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.

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.

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