

PU Adhesive

Description

PU Adhesive is a two component, solvent free, polyurethane adhesive, used to attach rubber matting to various substrates such as wood, concrete, asphalt and many more

Properties

Very good properties on many substrates

Solvent free

Easy application

Long lasting elastic properties

Non shrinking

Viscosity ¹ (mPa.s) 5750 - 6250

Density ² (g/cm³) 1,49

Shore Hardness ³ >D50

Tensile strength ⁴ (N/mm²) ~ 9

Elongation at break ⁴ (%) ≥ 50

Adhesive strength ⁵ > 1.5
(N/mm²) (Concrete fracture)

¹ = Brookfield, LV3, 30 RPM, @ 23°C

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

³ = ISO 2811-1, + 23°C/50% R.H

⁴ = ISO 527, 28 days /+ 23 °C/50% R.H

⁵ = EN 4624, 14 days / + 23 °C / 50% R.H

Form

Component A: Pasty, light grey
Component B: Liquid, brown

Packaging

Component A: 6 kg bucket
Component B: 1,5 kg bottle
Component A+B: 7,5 kg

Shelf life/storage

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

Mixing

Mixing ratio: Component A: Component B = 80:20 (parts by weight)

Add part B to part A and mix continuously for 2 minutes until a uniform mixture has been achieved.

To ensure thorough mixing pour the materials into a 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 Quartzline WK90 mixer paddle.

System construction

Adhesive: **PU Adhesive**

Cushioning: Rubber Mat rubber granulate mats in various thicknesses.
Standard thickness is 5 mm.

Sealcoat: Fill all the pores of the Rubber Mat rubber granulate mat with PU Sealcoat.
This will ensure that the mat is sealed and no pinholes can occur.

Scratch coat: The sealed Rubber Mat can be scratched using a Quartzline "SL-PU D30" or a "SL-PU D60".

Wearing course: The following Quartzline Floor systems can be applied:

- SL-PU D30
- SL-PU D60
- SL-PU UV

Topcoat: All "SL-PU" systems must be finished with a topcoat. For the Rubber Mat System this can be either, Coating PU Sg Matt, Coating PU SG Satin Gloss or Coating PU SG Coloured. These topcoats provide extra wear resistance, UV protection and give it a smooth matt or silk finish. See the relevant Technical Data Sheet.

FOR EACH RUBBER MAT SYSTEM THE FOLLOWING APPLIES:

After applying the sealcoat and possibly scratch coat the surface must be completely sealed BEFORE the self-leveling layer is applied. This will prevent blisters and holes appearing in the finishing coat.

The Quartzline PU Adhesive is part of the following systems:

Deco-Line Comfort Ultra

Deco-Line UV Ultra

Consumption

| Coating System | Product | Consumption |
|------------------------|---|----------------------------|
| Adhesive | 1x PU Adhesive | ~ 700 g/m ² |
| Rubber Shockpad | 1 x Rubber Mat | |
| Porefiller | 1-2 x PU Sealcoat | 350 - 450 g/m ² |
| Scratchcoat (optional) | 1x SL-PU D30 or SL-PU D60 | 200 - 500 g/m ² |
| Wearing course | 1x SL-PU D30, D60 or UV | See corresponding TDS |
| Topcoat (Mandatory) | 1-2 x Coating PU STU, SG transparent or SG Coloured | 150 - 175 g/m ² |

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.

When in doubt, perform a preliminary adhesion test

Substrate preparation

Concrete substrate 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. Never use polyester putty, this will result in bad adhesion.

Uneven substrates must be levelled using Quartzline Cementitious SL Underlayment or Cementitious SL Constructive. Please see respective Technical Data Sheets for more information.

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.

Application conditions

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|-----------------------------|--|
| Substrate temperature: | Minimum 10°C, maximum +25 °C |
| Ambient temperature: | Minimum 10°C, maximum +25 °C |
| Moisture content substrate: | <3% (determination trough carbide meter) |
| Relative air humidity: | Maximum 80% R.H. |
| Dew point: | Beware of condensation! |

The substrate and uncured floor must be at least 3°C above dew point to reduce the risk of condensation or efflorescence on the floor finish.

Application

Apply with a serrated trowel the PU Adhesive directly onto the substrate parallel to an applied chalk line. The TKB B2 trowel is the correct tool to apply the right thickness in one go.

The full contents of the mixture should be poured out as quickly as possible (within the potlife) and should be spread out immediately. Roll out the shockpad into the wet adhesive and press down with a weighted roller (Linoroller) of around 50 kg during the tack-phase.

Make sure that the PU Adhesive is applied 6 to 10 cm beyond the edge of the shockpad parallel to the Chalk Line.

Leave 1 cm free between the edges of the shockpad and the wall so that the shockpad can expand. Next day fill this joint with sealcoat.

| | |
|-------------------------|------------|
| Processing time @ 20 °C | 20 minutes |
| Tackfree @ 20 °C | 4,5 hours |
| Foot traffic @ 20 °C | 12 hours |
| Fully Cured @ 20 °C | 7 days |

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

Remarks

Do not apply the PU Adhesive on substrates with rising moisture.

Freshly applied PU Adhesive must be protected from damp, condensation and water for at least 24 hours

Mixed materials must be processed immediately as flow and defoaming will be reduced when pot-life date expires.

Under certain conditions, underfloor heating combined with high point loading, may lead to imprints in the resin.

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 electric 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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