

## SL-PU D70

### Description

SL-PU D70 is a two component, solvent-free, pigmented, self-levelling polyurethane resin with tough elastic properties.

A SL-PU D70 floor is applied where a hard tough elastic, seamless floor is required.

Ideal on timber flooring, hollow-core slab floors, cementitious screed, mastic asphalt and where contact noise reduction is required.

Perfect for for industrial flooring in production areas, warehouses and workplaces.

Suitable for light to medium industrial usage.

For many years, this self-levelling floor has been used together with our Quartzline Coating PU MG Matt or Satin Gloss. This renowned combination scores top points not only on abrasion resistance and hardness but also for its stable aliphatic UV topcoat. This topcoat is filled with UV absorbers and slows down the yellowing of the already very good UV resistant SL-PU D70.

This coating has a very low VOC content and it meets the high regulations of the German AgBB, French Class A+, and BREEAM and LEED demands for clean air.

This flooring system is extremely suitable to **broadcast** with decorative coloured flakes.

Use 3% to 5% Quartzline "antislip kfu" to achieve a perfect non-slip finish.

### Form

**Component A:** Liquid, colored

**Component B :** Liquid, yellow transparent

Almost all RAL, NCS AND SIKKENS colours are available. Other colours available on request

Discoloration and colour deviation will occur when exposed to direct sunlight. This will not affect the functionality or performance of the installed floor.

The SL-PU D70 must always be finished with a Quartzline Coating PU MG.

Application at different stages and combining different batch numbers in one project could result in colour differences, to avoid this:

**Order all materials for your project at the same time**

### Properties

Tough elastic with good surface hardness

Aromatic, but improved UV resistance

Liquid proof

Solvent-free

High chemical and mechanical resistance.

Viscosity <sup>1</sup> (mPa.s) 2500 - 3000

Shore Hardness <sup>2</sup> > D70

Density <sup>3</sup> (g/cm<sup>3</sup>) 1.41

Tensile strength <sup>4</sup> @ 28d (N/mm<sup>2</sup>) ~ 14

Elongation at break <sup>4</sup> @ 28d (%) ≥ 70

Potlife @ 20 °C (min.) ~ 20

Adhesive strength <sup>5</sup> (N/mm<sup>2</sup>) > 1.5  
(Concrete fracture)

<sup>1</sup> = Brookfield, LV4, 30 RPM, @ 23°C

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

<sup>3</sup> = ISO 2811-1, + 23°C/50% R.H

<sup>4</sup> = ISO 527/+ 23 °C/50% R.H

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

## Packaging

Component A: 20 kg bucket  
Component B: 5 kg jerry can  
Component A+B: 25 kg set

## Shelf life/storage

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

## Application

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

Add the complete contents of component B to component A and mix for 2 minutes into a homogeneous mixture.

Then pour the mixture into a clean bucket and mix again for 1 minute. This will prevent unmixed parts on the edge and/or bottom of the bucket.

***To minimize air inclusions do not mix too quickly.  
Air that has not been mixed in, doesn't have to come out during curing.***

Mixing is preferably done with a powerful mixer such as the Quartzline WK 90 mixer on a low speed (300 – 400 RPM).

## System construction

### **Primer for porous substrates:**

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

### **Primer for non-porous substrates:**

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

**Scratch coat:** For extra levelling and/or to seal the substrate, an additional scratch coat of Quartzline "Primer BHH" with Microdol A100 filler could be an option.  
A scratch coat is preferably applied at 0,5 to 1 kg per square metre

### **Wearing Coarse: SL-PU D70**

**Topcoat:** The yellowing SL-PU D70 must be covered with a UV stable, aliphatic topcoat such as the Quartzline Coating PU MG Matt or Satin Gloss. These topcoats contain UV absorbers which will slow down the yellowing of the SL-PU D70 significantly.

**Extra topcoat:** To increase wear resistance and UV protection, a second layer of Coating PU MG can be used.

### **FOR ALL SELF-LEVELING SYSTEMS THE FOLLOWING APPLIES:**

**After applying the primer and optional scratch coat, the surface must be sealed BEFORE the self-leveling layer is applied. This is done to avoid blisters and holes in the finishing coat**

**The Quartzline SL-PU D70 is part of the following systems:**



- **Quartzline Deco EVO D70**

**Consumption**

Screed floor system	Product	Consumption
Primer	Primer BHH	125 - 250 g/m <sup>2</sup>
	Primer GW	100 - 150 g/m <sup>2</sup> .
Scratch Coat (optional)	Primer BHH + Filler A100	500 - 1000 g/m <sup>2</sup>
<b><u>Wearing Course</u></b>	<b>SL-PU D70</b>	
<b>1 mm layer thickness</b>		<b>~ 1410 g/m<sup>2</sup></b>
<b>2 mm layer thickness</b>		<b>~ 2820 g/m<sup>2</sup></b>
<b>3 mm layer thickness</b>		<b>~ 4230 g/m<sup>2</sup></b>
Topcoat	Quartzline PU MG	150 - 175 g/m <sup>2</sup>
Extra Topcoat (optional)	Quartzline PU MG	150 - 175 g/m <sup>2</sup>

**Substrate preparation**

The substrate must be sound and sufficiently compression-resistant (at least 25 N/mm<sup>2</sup>), with a minimum adhesive strength of 1.5 N/mm<sup>2</sup>.

The substrate must be clean and dry and free of dirt, oil, grease and other soiling.

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.

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.

The concrete or screed substrate must be primed.

Uneven substrates must be levelled to achieve an even substrate. Use Quartzline Cementitious SL Underlayment or Cementitious SL Constructive.  
Please see respective Technical Data Sheets for more information.

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

### **Application conditions**

Surface temperature:	Minimum 10°C, maximum +25 °C
Ambient temperature:	Minimum 10°C, maximum +25 °C
Surface moisture content:	< 4 % moisture To be tested with a carbide measurement.
Relative air humidity:	Maximum 70% R.H.
Dew point:	Beware of condensation!

The temperature of the subfloor and non-hardened material must be at least 3°C higher than the dew point to prevent the risk of condensation formation, efflorescence or mold formation on the floor finish.

### **Application**

Processing time @ 20 °C	20 minutes
Touch dry @ 20 °C	4.5 hours
Can be walked on @ 20 °C	8 hours

Check the moisture content of the surface, the R.H. and dew point before applying.

Pour SL-PU D70 and spread evenly with a flat or toothed trowel.  
Preferably pour the complete contents of the bucket in 1 go to avoid a fast reaction of material left in the bucket.

### **Remarks**

Do not use SL-PU D70 on surfaces with rising damp.

After application Quartzline SL-PU D70 must be protected from damp, condensation and water for at least 24 hours (+20 °C).

Non-hardened material reacts with water (foaming), so while working, prevent drops of sweat falling into the material by using a Quartzline headband and wristband!

Uneven or dirt covered substrates should not be treated with thin coatings. Both substrate and adjacent areas should always be thoroughly prepared and cleaned prior to application.

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

Immediately process all mixed material, otherwise at the end of the processing time the flow and de-aeration will decrease.

Use material with the same batch numbers to be sure of an exact and even color match.

If heating is required do not use gas, oil, paraffin or other fossil fuel heaters as they produce large quantities of both CO<sup>2</sup> and water vapour which may adversely affect the finish.

Only use electrically powered warm air blower systems when heating is needed.

Switch off underfloor heating during application and for the first 48 hours, after this period you may increase the temperature gradually.

Underfloor heating or high ambient temperatures, combined with a highly concentrated load, can, in certain circumstances, result in imprints in the resin.

Process the SL-PU D70 in a room whose windows are taped, to prevent direct sunlight and prevent heating of the floor. Incoming sunlight can be detrimental to the defoaming and flow of the screed, and may cause other surface disturbances.

### **Cleaning/maintenance**

To maintain the appearance of the floor after application, the floor 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 how to safely handle, store and dispose 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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