# SL-EP 2K

Quartzline SL-EP 2K is a two-component, solvent-free, pigmented, self-levelling epoxy floor with good mechanical properties, for floors with normal to medium-heavy loads. Suitable for storage and logistics areas, production areas, workshops, garages and loading docks.

SL-EP 2K has a high-gloss appearance. For a matt or satin finish, the floor can be sealed with Quartzline Coating PU MG Matt or Satin Gloss. This combination offers good wear resistance and good chemical and mechanical resistance. The UV absorbers in the topcoat considerably slow down the yellowing of SL-EP 2K.



CE

*CE according to EN 13813 (DoP06EP2K015).*

## FEATURES

- Liquid-tight
- Solvent-free
- Good chemical resistance
- Good mechanical resistance

## TECHNICAL PROPERTIES

| Property | Unit | Value |
|---|---|---|
| Viscosity[1] | mPa·s | 2.000 – 2.500 |
| Shore hardness[2] | Shore D | > 80 |
| Density[3] | g/cm³ | 1,64 |
| Density with 25% Zand Ultra Fijn[3] | g/cm³ | 1,73 |
| Compressive strength[4] | N/mm² | > 65 |
| Flexural strength[4] | N/mm² | > 35 |
| Abrasion resistance[5] | mg | ca. 40 |
| Adhesion strength[6] | N/mm² | > 1.5 (concrete failure) |
| Electrical conductivity | – | Insulating |
| Reaction to fire | – | Cfl-s1 |

*[1] Brookfield, LV4, 30 RPM, @ 23 °C [2] DIN 53505, 28 days / +23 °C / 50% R.H [3] ISO 2811-1, +23 °C / 50% R.H [4] EN 196-1, +23 °C / 50% R.H [5] Taber Abrasion, CS10, 10 N, 1000 cycles [6] EN 4624, 14 days / +23 °C / 50% R.H*

## APPLICATION CONDITIONS

| | |
|---|---|
| **Substrate temperature** | Minimum 5 °C, maximum 30 °C |
| **Ambient temperature** | Minimum 5 °C, maximum 30 °C |
| **Substrate moisture content** | < 4% moisture (test via calcium carbide measurement) |
| **Relative humidity** | Maximum 80% R.H. |
| **Dew point** | Min. 3 °C above the dew point |

The temperature of the substrate and of the uncured material must be at least 3 °C above the dew point to reduce the risk of condensation, white discolouration or tackiness (carbamation).

## SUPPLY FORM

| Component | Consistency | Appearance |
|---|---|---|
| **A** | Liquid | Coloured |
| **B** | Liquid | Clear to light yellow |

*Almost all RAL, NCS and Sikkens colours are possible. Other colours on request.*

## SET SIZES

| Set size | Component A | Component B | Packaging |
|---|---|---|---|
| **1 kg** | 0,86 kg | 0,14 kg | Can + can |
| **25 kg** | 21,5 kg | 3,5 kg | Tin + jerry can |

*Mixing ratio A : B = 86 : 14 (parts by weight). Each set contains one component A and one component B.*

## STORAGE & SHELF LIFE

| | |
|---|---|
| **Shelf life** | Up to 12 months from production date |
| **Packaging** | Original, sealed, unopened and undamaged |
| **Storage conditions** | Dry, between 5 °C and 30 °C |

## SURFACE PREPARATION

The substrate must be sound, clean, dry and flat, with a minimum compressive strength of 25 N/mm² and a minimum adhesion strength of 1.5 N/mm².

Mechanically treat concrete substrates, for example by low-dust blasting or diamond grinding, to remove the cement skin and create a rough, adhesive surface. Remove weak concrete and loose levelling layers. Fill major damage, holes and cavities with Quartzline Epoxygel or the appropriate Quartzline MRP.

Level uneven substrates with the appropriate Quartzline Cementitious or Alpha SL levelling mortar.

Then apply a primer. In most cases, Quartzline Primer BHH is used on porous substrates and Quartzline Primer GW on closed substrates. In specific situations, alternatives can be used: Quartzline Primer DPM for residual moisture up to 6%, Quartzline Europox Z speed for time-critical applications.

After priming, treat any cracks in the substrate with a filler made by thickening the primer or scratchcoat with SYLOTHIX 51.

Then apply a layer of Quartzline SL-EP Scratchcoat. Before applying SL-EP 2K, always carry out an adhesion test if the scratch coat is older than 48 hours or if there is any doubt about adhesion.

Make sure the substrate is completely closed after the primer and any scratch coat before the finishing layer is applied, to prevent bubbles and pinholes.

Switch off underfloor heating at least 48 hours before, during and after installation. For new-build floors with underfloor heating, follow a start-up and cool-down protocol.

Do not use polyester-based filler; no adhesion is achieved on it.

## CONSUMPTION

| Layer thickness | SL-EP 2K | 75% SL-EP 2K + 25% Zand Ultra Fijn 0-0.25 |
|---|---|---|
| **1 mm** | ca. 1.640 g/m² | ca. 1.730 g/m² |
| **2 mm** | ca. 3.280 g/m² | ca. 3.460 g/m² |
| **3 mm** | ca. 4.920 g/m² | ca. 5.190 g/m² |

## MIXING

Mixing ratio component A : component B = 86 : 14 (parts by weight).

Add component B completely to component A and mix for approx. 2 minutes until homogeneous. Then pour the mixture into a clean bucket, leave it for approx. 10 minutes and mix again for approx. 30 seconds at low speed. Keep the mixing paddle below the liquid level to limit air entrapment. Preferably mix with a slow-speed mixer, 300 – 400 RPM, with a Quartzline WK 70 mixing paddle.

If required, SL-EP 2K can be further filled with Zand Ultra Fijn 0-0.25, up to a ratio of 75% floor resin to 25% sand, while retaining flow and de-aeration.

Use 3% to 5% Quartzline Antislipkorrel KFU to obtain an anti-slip layer.

## APPLICATION

Check the moisture content of the substrate before application.

Pour out SL-EP 2K and spread it evenly with a flat or notched trowel. Preferably empty the bucket in one go, because material left in the bucket reacts quickly.

When filled with Zand Ultra Fijn 0-0.25, SL-EP 2K can be broadcast with a mix of carborundum and/or molochite. These grains are hard and improve wear resistance, making it suitable for industrial floors. Depending on the ambient temperature, wait at least 1 hour or sometimes longer, until SL-EP 2K slowly starts to react and the grains float on the surface without sinking. Wear spiked shoes and walk backwards into the freshly applied floor to check the curing.

Broadcasting with carborundum and/or molochite only works at the surface of SL-EP 2K. Without Zand Ultra Fijn, or if broadcast too early, the grains sink and the effect is lost.

The system is suitable for adding decorative coloured flakes. When flakes are used, a Quartzline Coating PU MG topcoat is required. For extra wear resistance and UV resistance, a layer of Coating PU MG Matt or Satin Gloss can be applied within 24 hours of applying SL-EP 2K. For a plasticiser-resistant topcoat, use Quartzline Coating PU TR.

## CURING TIME

| | |
|---|---|
| **Pot life** | approx. 20 min |
| **Walkable** | approx. 24 hours |
| **Fully cured** | 7 days |

*The times stated apply under normal conditions at 20 °C. Higher temperatures may shorten these times and lower temperatures may extend them.*

## REMARKS

- Do not apply SL-EP 2K to substrates with rising damp.
- Protect freshly applied SL-EP 2K from moisture, condensation and water for at least 24 hours (at 20 °C).
- Unevenness in the substrate and trapped dirt remain visible after applying a thin seal layer.
- Always order all material for one project at once.
- Direct sunlight can cause discolouration and colour deviations. This does not affect the functionality and performance of the floor.
- Process mixed material immediately: at the end of the pot life, flow and de-aeration decrease.
- Assess and treat cracks properly to prevent recurring cracking.
- If heating is required, use only electrically powered warm-air ventilation systems.
- Underfloor heating or a high ambient temperature, combined with a high point load, can in certain circumstances lead to indentations in the resin.

## CLEANING / MAINTENANCE

Remove spilled contaminants as soon as possible and clean the floor regularly for durable maintenance, using suitable cleaning agents and brushes, scrubber-dryers, rubber squeegees or high-pressure cleaning.

Clean with lukewarm water, never with hot water (above 40 °C).

## BASIS OF VALUES

All technical data in this product data sheet is based on laboratory tests. Data may change depending on the conditions.

## HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, the user should consult the most recent safety data sheet (SDS), regarding the physical, ecological, toxicological and other safety-related data.

## LEGAL NOTICE

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