

SILIKAL® F 10 resin is a modified methacrylic resin of high elasticity and low-temperature flexibility whose highly molecular structure and extensibility makes it outstanding under certain conditions for the filling of concrete joints in floors constructions.

SILIKAL® F 10 resin is characterized by very high elasticity in comparison with all other SILIKAL® resins, ensuring lasting joint filling so that movements in the substrate can be better absorbed. Its excellent low-temperature flexibility improves its behaviour outdoors as the climate changes. Because of the surface tackiness (due to the materials), the joint surfaces can tend to become contaminated. This can be resolved by a thin top coat of SILIKAL® R 61 or R 62 resin or by sprinkling in quartz sand of particle size 0.7 – 1.2 mm.

Like all other SILIKAL® resin types, joints made from SILIKAL® F 10 resin are resistant to acids and lyes.

SILIKAL® F 10 resin is not suitable for structural expansion joints. In outdoor applications SILIKAL® F 10 resin must always be coloured with at least 5 % pigment powder.

Advice on application/use

After being mixed with the hardening powder, SILIKAL® F 10 resin is immediately poured into the joint, which was previously primed as deep as possible on both sides with SILIKAL® R 51 resin. To avoid endless seepage into cavities below, the joint floor must be sealed. This can be done by using flexible PVC cables, for instance. Similar materials (e. g. cellular rubber) must be checked for compatibility so as to avoid hardening problems. It is also common practice to add SILIKAL® Filler QS 0.7 – 1.2 mm, assuming that the joint movement will be slight.

The joint width should be between 8 mm and 20 mm and the joint depth at least 20 mm.

To ensure better pouring homogeneity and less contamination, the resin can be made up with SILIKAL® Filler QM so that it can be kept in stock in small containers over several months. This will restrict the diminution of its extensibility.

Within a large area of coating, filled-in joints must always be visible as a line. Modern practice – in consultation with the customer – has demonstrated the merits of covering the filled-in joint with the floor coating as part of the coating operations. In many cases, particularly if flexible coatings are used in any case, no cracks form, so that the coating can be said to be seamless. Should cracks in the flooring nevertheless occur at a later stage, these can be cut open with a diamond wheel to allow joint mass to be poured in.

Guideline recipe and batch quantities

| Item | Component | Guideline recipe (% by weight) | Comments | Batch for 10 litre bucket | |
|------|---------------------------------|-----------------------------------|---|------------------------------|-------------------------------|
| | | | | | |
| 1 | SILIKAL® F 10 resin | 94 % | | 9.4 kg | 9.4 litres |
| 2 | SILIKAL® Pigment Powder | 5 % | | 500 g | |
| 3 | SILIKAL® Anti-flow Additive TA1 | 1 % | | 100 g | |
| | Total: | 100 % | Average consumption: 1.1 kg per litre volume | 10 kg | approx. 9.5 litres |
| 4 | SILIKAL® Hardening Powder | 1 – 5 % related to item 1 | See "Hardener dosages" table for quantities | 95 – 475 g | |

Characteristics of F 10 as delivered

| Property | Measuring method | Approx. value |
|--|------------------|------------------------|
| Viscosity at +20 °C | DIN 53 015 | 2000 – 3000 mPa · s |
| Flow time at +20 °C, 6 mm cup | ISO 2431 | 240 – 300 sec. |
| Density D ₄ ²⁰ | DIN 51 757 | 0.98 g/cm ³ |
| Flash point | DIN 51 755 | +10 °C |
| Pot life at +20 °C (100 g, 2 % pbw. hardening powder) | | approx. 15 min. |
| Application temperature | | +5 °C to +30 °C |

Hardener dosages

| Temperature | Hardening powder % pbw. * | Pot life approx. min. | Hardening time approx. min. |
|-------------|------------------------------|--------------------------|--------------------------------|
| +5 °C | 5.0 | 20 | 60 |
| +10 °C | 4.0 | 15 | 40 |
| +15 °C | 3.0 | 15 | 40 |
| +20 °C | 2.0 | 15 | 40 |
| +25 °C | 1.0 | 10 | 30 |
| +30 °C | 1.0 | 8 | 25 |

* The quantity of hardening powder is always related to the quantity of resin.

👁 For further information, please refer to the separate product information sheet "SILIKAL® Hardening Powder".



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Silikal product information

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