

# SILIKAL® RU 747 resin

Reactive, slightly elasticized self-levelling resin with good resistance to thermal deformation



SILIKAL® RU 747 resin is a solvent-free, medium-viscosity 3-component methacrylic resin with very good self levelling characteristics and enhanced resistance to thermal deformation with simultaneous elasticization. It serves as a binder for ductile 4 – 6 mm self-levelling coatings, preferably on floors with light long-term thermal stress (bakeries).

SILIKAL® RU 747 is fast-hardening and can be applied in a temperature range of 0 °C to +30 °C, so that the surface can generally be used after just 1 – 2 hours. At lower temperatures (below +10 °C) delayed post-curing occurs, so that the full mechanical or chemical durability will not be reached until after at least 2 – 3 days.

## Application

Because of the properties described above, SILIKAL® RU 747 resin is particularly suitable for bakeries when combined with SILIKAL® RU 727 and SILIKAL® R 71/R72 resin according to system E.

SILIKAL® RU 747 resin can also be used as a self-levelling coating in interiors to provide a more impact-resistant alternative to SILIKAL® R 61 or SILIKAL® R 62 resin.

## Self-levelling coating 4 – 6 mm

(Use in system E)

### Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 30 litre bucket	
1	SILIKAL® RU 747 resin	18.0 %		6.1 kg	6.1 litres
2	SILIKAL® Additive I	6.6 %		2.3 kg	2.3 litres
3	SILIKAL® Filler SL	73.7 %	1 sack	25 kg	approx. 18 litres
4	SILIKAL® Pigment Powder	1.7 %		500 g	
	<b>Total:</b>	<b>100 %</b>	<b>Average consumption: 1.9 kg/m<sup>2</sup> per mm thickness</b>	<b>33.9 kg</b>	<b>approx. 18 litres</b>
5	SILIKAL® Hardening Powder	4 – 7 % related to items 1 + 2	See “Hardener dosages” table for quantities	350 – 600 g	

The batch is mixed with a hand agitator until no lumps are left and is then immediately poured onto the already primed substrate. To ensure that the desired coating thickness of 4 – 6 mm is achieved, the mixture is initially spread with the doctor blade. In individual cases it may be necessary to use the trowel to ensure more precise levelling.

The following options are available for further composition:

- A) Smooth, no reworking:** The surface appears smooth and leads to light dirt pick-up in the course of use.
- B) Smooth, top coated:** Possible pigmented top coats include SILIKAL® RU 727 resin as well as SILIKAL® R 72 resin.
- C) Coloured flakes:** SILIKAL® Coloured flakes can be sprinkled in before curing. The surface is then sealed with SILIKAL® R 71, R 71 re or R 72 resin.

### Special advice:

Overworking with further coats must be done within a period of 24 hours.

SILIKAL® RU 747 must never be applied unpigmented.

### Characteristics of RU 747 as delivered

Property	Measuring method	Approx. value
Viscosity at +20 °C	DIN 53 015	220 – 270 mPa · s
Flow time at +20 °C, 4 mm cup	DIN 53 211	48 – 52 sec.
Density D <sub>4</sub> <sup>20</sup>	DIN 51 757	1.00 g/cm <sup>3</sup>
Flash point	DIN 51 755	+10 °C
Pot life at +20 °C (100 g, 5 % pbw. hardening powder)		approx. 15 min.
Application temperature		0 °C to +30 °C

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#### Silikal product information

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## Characteristics of RU 747 in the hardened state

Property	Measuring method	Approx. value
Density	DIN 53 479	1.15 g/cm <sup>3</sup>
Ultimate elongation	DIN 53 455	34 %
Shore-D	DIN 53 505	58 – 61 units
Water absorption, 4 days	DIN 53 495	90 mg (50 · 50 · 4 mm)
Water vapour permeability	DIN 53 122	1.05 · 10 <sup>-11</sup> g/cm · h · Pa

## Characteristics of the self-levelling 4 - 6 mm flooring

Property	Measuring method	Approx. value
Compressive strength	DIN 1164	46 N/mm <sup>2</sup>
Tensile strength in bending	DIN 1164	26 N/mm <sup>2</sup>
Modulus of elasticity	DIN 53 457	8000 N/mm <sup>2</sup>

## Mixing ratio RU 727 resin / Additive I

Component	Quantity in kg	Quantity in litres
SILIKAL® RU 747 resin	5.4	5.4
SILIKAL® Additive I	2.0	2.0

Plus SILIKAL® Hardening Powder to the total quantity (7.4 kg) according to the “**Hardener dosages**” table. Greater or lesser batches presuppose that the **ratio of SILIKAL® RU 747 resin to SILIKAL® Additive I = 5.4 : 2** is always observed.

### Example: Batch quantity 1 kg:

0.73 kg SILIKAL® RU 747 resin + 0.27 kg SILIKAL® Additive I plus hardening powder for 1 kg as per table.

## Hardener dosages

Temperature	Hardening powder % pbw. *	Pot life approx. min.	Hardening time approx. min.
0 °C	7.0	40	80
+10 °C	6.0	30	60
+20 °C	5.0	15	30
+30 °C	4.0	10	20

\* The quantity of hardening powder is always related to the quantity of resin including Additive I.

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

Other applicable documents	Data sheet	Page
SILIKAL® Additive I	SILIKAL® Additive I	82
SILIKAL® Hardening Powder	SILIKAL® Hardening Powder	86 – 87
General processing information	AVH	89 – 92
The substrate	DUG	93 – 95
Fillers and pigments	FUP	96 – 99
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