

SILIKAL® R 41 resin

Reactive, very low-viscosity impregnating and injection resin



SILIKAL® R 41 resin is a very low-viscosity, transparent, solvent-free 2-component methacrylic resin.

Application

SILIKAL® R 41 resin is used in order to strengthen and impregnate extremely porous substrates, to close up cracks in composite screeds and as an injection resin for hollow screeds. SILIKAL® R 41 resin should only be used on cement substrates. It is not generally recommended for use on natural stone.

Flooding the surface to saturation point helps to stabilise the substrate. After impregnation, the surface must be primed if it is to be subsequently coated.

If impregnating composite screeds, watch out for cracks extending into the concrete underneath. Otherwise there is a danger of dripping into the storey below. The cracks may need to be stopped up first.

Advice on application

Once the substrate has been inspected, it normally needs to be pre-treated.

The necessary quantity of hardener must be adjusted in light of the temperature of the surface. For exact details, please refer to the table “**Hardener dosages**”.

You must not dose less than the given quantity of hardening powder, as this will jeopardize the curing process. You must also avoid overdosing the hardening powder, as this can likewise lead to serious curing problems.

If the pot life, within which good penetration of the substrate is guaranteed, is to be observed, appropriate batch quantities should be estimated. The material must be applied as soon as the hardening powder has finished dissolving in the resin components.

SILIKAL® R 41 resin must be applied evenly without leaving puddles by means of a paint roller or brush. If rubber blades are used, the surface must always be rolled with a paint roller afterwards. Matt and heavily absorbent patches must be reworked wet in wet before hardening until the pores are closed up.

In the case of wider cracks and holes, SILIKAL® Filler QS 0.2 – 0.6 mm must be sprinkled in before the resin hardens.

SILIKAL® R 41 resin must be completely cured before any further coat is applied.

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
				5 kg	5 litres
1	SILIKAL® R 41 resin	100 %		5 kg	5 litres
	Total:	100 %	Average consumption: 400 g/m²	5 kg	5 litres
2	SILIKAL® Hardening Powder	2 – 7 % related to item 1	See “Hardener dosages” table for quantities	100 – 350 g	

Characteristics of R 41 as delivered

Property	Measuring method	Approx. value
Viscosity at +20 °C	DIN 53 015	15 – 25 mPa · s
Flow time at +20 °C, 4 mm cup	DIN 53 211	11 – 14 sec.
Density D ₄ ²⁰	DIN 51 757	0.97 g/cm ³
Flash point	DIN 51 755	+10 °C
Pot life at +20 °C (100 g, 3 % pbw. hardening powder)		approx. 10 min.
Application temperature		-10 °C to +35 °C

Characteristics of R 41 in the hardened state

Property	Measuring method	Approx. value
Density	DIN 53 479	1.15 g/cm ³
Ultimate elongation	DIN 53 455	1.3 %
Shore-D	DIN 53 505	70 – 80 units
Water absorption, 4 days	DIN 53 495	125 mg (50 · 50 · 4 mm)
Water vapour permeability	DIN 53 122	1.05 · 10 ⁻¹¹ g/cm · h · Pa

Hardener dosages

Temperature	Hardening powder % pbw. *	Pot life approx. min.	Hardening time approx. min.
-10 °C	7.0	24	60
0 °C	5.5	15	40
+20 °C	3.0	10	25
+30 °C	2.0	8	15

* 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".

Other applicable documents	Data sheet	Page
SILIKAL® Hardening Powder	SILIKAL® Hardening Powder	86 – 87
General processing information	AVH	89 – 92
The substrate	DUG	93 – 95
Information on safety and protection	SUS	102 – 103
Storage and transport	LUT	104 – 106

Silikal product information

Issue 2.00.A

July 2006

Data sheet SILIKAL® R 41

Page 2 of 2

Silikal GmbH & Co. KG

✉ Ostring 23
☎ +49 (0) 61 82 / 92 35-0
🌐 www.silikal.de

D-63533 Mainhausen
☎ +49 (0) 61 82 / 92 35-40
@ mail@silikal.de