SILIKAL® R 51 resin

Reactive, low-viscosity primer for cement substrates

Expect more from your floor.

Description

SILIKAL® R 51 resin is a low-viscosity, transparent, solvent-free 2-component methacrylic resin with good penetrating power as a standard primer.

Application

SILIKAL® R 51 resin is used as an adherant primer on concrete and cement substrates.

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 the exact quantities, 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 51 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 reprimed wet in wet before hardening until the pores are closed up. Resin consumption is about 0.4 kg/m^2.

SILIKAL® Filler QS 0.7 – 1.2 mm can be sprinkled loosely into the fresh primer coat.

In the case of subsequent coating with SILIKAL® R 68, RU 320 or RV 368 resin, SILIKAL® Filler QS 0.7 – 1.2 mm (0.2 – 0.5 kg/m^2) must always be sprinkled in.

SILIKAL® R 51 resin must be completely cured before any further coat is applied.

Guideline recipe and batch quantities

(Use in systems B, C, D)

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® R 51 resin	100 %		10 kg	10 litres
	Total:	**100 %**	**Average consumption: 400 g/m^2**	**10 kg**	**10 litres**
2	SILIKAL® Hardening Powder	2 – 7 % related to item 1	See “Hardener dosages” table for quantities	200 – 700 g	

Silikal GmbH
Ostring 23
63533 Mainhausen, Germany
+49 (0) 61 82 / 92 35-0
+49 (0) 61 82 / 92 35-40
www.silikal.de
@ mail@silikal.de

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Characteristics of R 51 as delivered

Property	Measuring method	Approx. value
Viscosity at +20 °C	DIN 53 015	60 – 80 mPa · s
Flow time at +20 °C, 4 mm cup	DIN 53 211	18 – 21 sec.
Density D_4^{20}	DIN 51 757	0.98 g/cm³
Flash point	DIN 51 755	+10 °C
Pot life at +20 °C (100 g, 3 % pbw. hardening powder)	approx. 12 min.	
Application temperature	-10 °C to +35 °C	

Characteristics of R 51 in the hardened state

Property	Measuring method	Approx. value
Density	DIN 53 479	1.16 g/cm³
Ultimate elongation	DIN 53 455	7 %
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	22	60
0 °C	5.0	15	40
+20 °C	3.0	12	30
+30 °C	2.0	10	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"**.

CE

SILIKAL GmbH · Ostring 23 · 63533 Mainhausen · Germany
10[1)]
R 51 - 001
EN 13813 SR-AR1-B1,5-IR4
Synthetic resins for internal uses
(Application in accordance with the newest technical information)

Reaction to fire:	E_{fl}
Release of corrosive substances (Synthetic Resin Screed):	SR
Water permeability:	NPD [2)]
Wear resistance (Abrasion Resistance):	AR 1 [3)]
Bond strength:	B 1,5
Impact resistance:	IR 4
Sound insulation:	NPD [2)]
Sound absorption:	NPD [2)]
Thermal resistance:	NPD [2)]
Chemical resistance:	NPD [2)]

CE-labelling

[1)] Last two digits of the year in which the ce marking was affixed.
[2)] NPD = No performance determined.
[3)] Refers to a smooth surface without broadcasting.

Other applicable documents	Data sheet	Page
SILIKAL® Hardening Powder	SILIKAL® Hardening Powder	96 – 97
General processing information	AVH	98 – 101
The substrate	DUG	102 – 104
Information on safety and protection	SUS	111 – 112
Storage and transport	LUT	113 – 115

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