

SILIKAL® RU 727 resin is a low-viscosity, transparent, solvent-free 3-component methacrylic resin with enhanced substrate adhesion.

Application

SILIKAL® RU 727 resin is used as a primer on concrete, cement and asphalt substrates and as an intermediate primer on existing coatings. SILIKAL® RU 727 resin can be used on metal and ceramic substrates if SILIKAL® Additive M adhesion promotor is used. As a primer on mineral substrates with subsequent colour sealing, SILIKAL® RU 727 must also be in pigmented form. In the case of colour sealing on asphalt (IC 10 / IC 15 according to DIN/EN 13813), pigmented SILIKAL® RU 727 resin is applied directly, but a careful inspection of the substrate is absolutely essential. If the inherent strength is sufficient, it is only possible to seal or coat asphalt substrates in interior rooms that are as tightly temperature-controlled as possible.

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.

SILIKAL® RU 727 resin must be applied evenly without leaving puddles by means of a paint roller. Matt and heavily absorbent patches must be reprimed wet in wet before hardening until the pores are closed up. Further coats should be applied within 24 hours of hardening.

To produce SILIKAL® RU 727 resin in pigmented form, first disperse approx. 10 % pbw. of SILIKAL® Pigment Powder into the SILIKAL® RU 727 resin (5.3 kg of resin) using a dissolver unit, making sure there are no lumps, and then admix in the other components (SILIKAL® Additive I, SILIKAL® Hardening Powder, if necessary SILIKAL® Additive M).

SILIKAL® RU 727 resin must be completely cured before any further coat is applied.

Special advice

SILIKAL® RU 727 resin reaches its final physical properties in terms of compressive strength, final adhesion etc. after a post-reaction period which may last several days.

1. Priming

(Use in systems A – D)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® RU 727 resin	84.1 %		5.3 kg	5.3 litres
2	SILIKAL® Additive I	15.9 %		1.0 kg	1.0 litres
	Total:	100 %	Average consumption: 400 g/m²	6.3 kg	approx. 6.3 litres
3	SILIKAL® Hardening Powder	2 – 5 % related to items 1 + 2	See “Hardener dosages” table for quantities	130 – 320 g	

2. Alternative priming for ceramic tiles and metal substrates

(Use in systems B, C, D)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® RU 727 resin	83.9 %		5.3 kg	5.3 litres
2	SILIKAL® Additive I	15.8 %		1.0 kg	1.0 litres
3	SILIKAL® Additive M	0.3 %		19 g	15 ml
	Total:	100 %	Average consumption: 400 g/m²	6.32 kg	approx. 6.3 litres
4	SILIKAL® Hardening Powder	3 – 6 % related to items 1 + 2*	See “Hardener dosages” table for quantities	200 – 400 g	

* Because of the use of Additive M, the quantity of hardener increases by 1 % compared with the “Hardener dosages” table (cf. also Priming System A).

3. Thin coating

(Use in system A)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® RU 727 resin	54.0 %		5.3 kg	5.3 litres
2	SILIKAL® Additive I	10.2 %		1.0 kg	1.0 litres
3	SILIKAL® Filler QM	30.6 %		3.0 kg	approx. 3.2 litres
4	SILIKAL® Pigment Powder	5.2 %		500 g	
	Total:	100 %	Average consumption: 500 – 600 g/m²	approx. 9.8 kg	approx. 7.3 litres
5	SILIKAL® Hardening Powder	2 – 5 % related to items 1 + 2	See “Hardener dosages” table for quantities	130 – 320 g	

4. Pigmented top coat

(Use in system A)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® RU 727 resin	76.5 %		5.3 kg	5.3 litres
2	SILIKAL® Additive I	14.4 %		1.0 kg	1.0 litres
3	SILIKAL® Pigment Powder	9.1 %		630 g	
	Total:	100 %	Average consumption: 400 g/m²	approx. 7 kg	approx. 7 litres
4	SILIKAL® Hardening Powder	2 – 5 % related to items 1 + 2	See “Hardener dosages” table for quantities	130 – 320 g	

Characteristics of RU 727 as delivered

Property	Measuring method	Approx. value
Viscosity at +20 °C	DIN 53 015	170 – 220 mPa · s
Flow time at +20 °C, 4 mm cup	DIN 53 211	38 – 42 sec.
Density D ₄ ²⁰	DIN 51 757	0.99 g/cm ³
Flash point	DIN 51 755	+10 °C
Pot life at +20 °C (100 g, 3 % pbw. hardening powder)		approx. 15 min.
Application temperature		0 °C to +35 °C

Characteristics of RU 727 in the hardened state

Property	Measuring method	Approx. value
Density	DIN 53 479	1.16 g/cm ³
Ultimate elongation	DIN 53 455	28 %
Shore-D	DIN 53 505	65 – 75 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

Mixing ratio RU 727 resin / Additive I

Component	Quantity in kg	Quantity in litres
SILIKAL® RU 727 resin	5.3	5.3
SILIKAL® Additive I	1.0	1.0

Plus BPO SILIKAL® Hardening Powder to the total quantity (6.3 kg) according to the “Hardener dosages” table. Greater or lesser batches presuppose that the ratio of SILIKAL® RU 727 resin to SILIKAL® Additive I = 5.3 : 1 is always observed.

Example: Batch quantity 1 kg:

0.84 kg SILIKAL® RU 727 resin + 0.16 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	5.0	20	60
+10 °C	4.0	15	40
+20 °C	3.0	15	40
+30 °C	2.0	10	25

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

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

CE	
SILIKAL GmbH · Ostring 23 · 63533 Mainhausen · Germany	
10 ¹⁾	
RU 727 - 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 _n
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® Additives	SILIKAL® Additive I	92
		SILIKAL® Additive M	93
	SILIKAL® Hardening Powder	SILIKAL® Hardening Powder	96 – 97
	General processing information	AVH	98 – 101
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	Fillers and pigments	FUP	105 – 108
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Silikal GmbH

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

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

Silikal product information

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