

SILIKAL® RU 320 resin is a modified methacrylate resin of high flexibility which is suitable for water proofings on interior and exterior concrete surfaces.

SILIKAL® RU 320 resin is permanent flexible and can follow thermic movements of the concrete. As a result of the high flexibility water proofings appear a little bit tacky on its own surface and might lead to a certain absorbancy of air dust-polution like any other materials. This fact can be ignored when the membrane layer anyway will be overlaid by another concrete screed or tiles. For better light stability always add a small amount of 2 – 5 % SILIKAL® Pigment Powder.

In order to work out an individual solution for your job please contact our Technical Department for detailed informations.

## Application

**Membranes or water proofings requiring an approval for overlays made of concrete screed or tiles i.e. for balconies, swimming pools, bath rooms or other concrete floor constructions.**

After preparing the concrete surface according to the technical rules (ball blasting, grinding, cleaning etc) apply first the primer SILIKAL® R 51 resin as normally. After curing apply the coating mixture according to the formulation given in table 1. Depending on your skill and experience different tools to spread the coating material can be used, such like Mohair-rollers, comb trowel or smooth trowel. It is important to avoid blisters during the application. Two layers of 1 – 1,5 mm each will be necessary. Also consider to apply the material up the walls, columns or fixed machineries atleast 5 – 10 cm to avoid water leakage. In case of overlaying with tiles the last coating surface must be sprinkled fully with SILIKAL® Filler QS 0,7 – 1,2 mm to provide a good bond to the tile adhesive mortar. Self stable concrete screeds of more than 5 cm thickness can be layed on directly without sand sprinkling. The total thickness of the water proofing membrane will be appr. 2 – 2,5 mm.

For these application areas we can provide German Approvals for the following classes:

- Application Area A:** Water spillage on wet surfaces on floors (A2) and walls (A1) caused by cleaning water or water of natural use, such like swimming pool surroundings or in public bath or shower rooms.
- Application Area B:** Interior and exterior wall and floor surfaces of swimming pools filled with water of drinking category. For special salt waters used for medical purpose an individual approval will be necessary.
- Application Area C:** Walls- and floor surfaces in commercial establishments, also in connection with light chemicals ( i.e. car wash, kitchens, canteens, food precessing) except for those chemicals which require special and additional approvals (regulations concerning the ground water protection act § 19 WHG).

SILIKAL® RU 320 waterproofing also meets the technical requirements underneath of SILIKAL coating system B and C which is not included in the approval as the above mentioned approval does not cover this application.

Water proofings made of SILIKAL® RU 320 resin on concrete roofs without additional coverings made of concrete screeds or tiles will have to pass additional national testings and approvals depending on the country's regulations and requirements. SILIKAL can not provide approvals for this applications.

## Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® RU 320 resin	74 %		7.4 kg	7.4 litres
2	SILIKAL® Filler QM	20 %		2 kg	approx. 2.1 litres
3	SILIKAL® Pigment Powder	5 %		500 g	
4	SILIKAL® Anti-flow Additive TA2	1 %		100 g	
	<b>Total:</b>	<b>100 %</b>	<b>Average consumption: 1.3 kg/m<sup>2</sup> per mm thickness</b>	<b>10 kg</b>	<b>approx. 7.7 litres</b>
5	SILIKAL® Hardening Powder	1 – 6 % related to item 1	See "Hardener dosages" table for quantities	75 – 450 g	

The mixing device (dissolver) must be EX-proof. Stir moderately to avoid self heating during the process (max. +35 °C).


### Characteristics of RU 320 as delivered

Property	Measuring method	Approx. value
Viscosity at +20 °C	DIN 53 015	300 – 500 mPa · s
Flow time at +20 °C, 6 mm cup	ISO 2431	80 – 110 sec.
Density D <sub>4</sub> <sup>20</sup>	DIN 51 757	0.99 g/cm <sup>3</sup>
Flash point	DIN 51 755	+10 °C
Pot life at +20 °C (100 g, 2 % pbw. hardening powder)		12 – 15 min.
Application temperature		0 °C to +30 °C
Ultimate elongation when hardened		180 % at +23 °C

### Hardener dosages

Temperature	Hardening powder % pbw. *	Pot life approx. min.	Hardening time approx. min.
0 °C	6.0	20	80
+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	1.5	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".



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
Fillers and pigments	FUP	96 – 99
Chemical resistance	CBK	100 – 101
Information on safety and protection	SUS	102 – 103
Storage and transport	LUT	104 – 106
General cleaning advice	ARH	107 – 108