SILIKAL® R 62 resin

Reactive, slightly elasticized resin for self-levelling coatings

Expect more from your floor.

SILIKAL® R 62 resin is a medium-viscosity methacrylic resin that is outstandingly suitable for self-levelling coatings of 1 – 4 mm, predominantly indoors or as a top coat for elastic floorings outdoors. Coatings with SILIKAL® R 62 resin can bridge cracks to certain degree. Visually appealing surfaces and systems can be developed when used in conjunction with a variety of fillers, pigments or decorative materials.

SILIKAL® R 62 resin is characterized by good flow properties and therefore tends not to form trowel marks, assuming that the suggested filler recipe is used. The slight plasticization ensures universal application. SILIKAL® R 62 resin is roughly comparable with SILIKAL® R 61 resin in terms of its physical characteristics. SILIKAL® R 62 resin is predominantly recommended for sprinkling coloured flakes (loosely or saturated) and for smooth universal shades. The surface is preferably applied with SILIKAL® R 72 resin.

Application

SILIKAL® R 62 resin is used as a binder in manufacturing various coating types and recipes. Possible substrates for interiors include concrete, screed and ceramic tiles. A variety of different systems can be formulated from SILIKAL® R 62 resin depending on the application and stresses. Some standard recipes, which can be or may have to be adapted if alternative fillers are used, are suggested below. In this regard we suggest that you conduct laboratory tests using your fillers or pigments.

Special advice

Coatings made from SILIKAL® R 62 resin must not under any circumstances be rolled with a spiked roller, as otherwise the protective paraffin film cannot form.

1. Rollable wall coating

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 30 litre bucket	
1	SILIKAL® R 62 resin	69 %		20 kg	20 litres
2	SILIKAL® Filler QM	25 %		8 kg	approx. 8.6 litres
3	SILIKAL® Pigment Powder	5 %		1.5 kg	
4	SILIKAL® TA2 anti-flow additive	1 %		300 g	
	Total:	**100 %**	**Average consumption: 1.3 kg/m² per mm thickness**	**29.8 kg**	**approx. 23 litres**
5	SILIKAL® Hardening Powder	1 – 6 % related to item 1	See “Hardener dosages” table for quantities	200 – 1200 g	

SILIKAL® R 62 resin must always be applied directly on the primer and to a thickness of at least 1 mm, otherwise hardening problems might occur due to insufficient polymerisation energy. If there is already a methacrylate-based coating on the wall (e. g. concave moulding), the minimum thickness can be 0.5 mm. Since coatings for vertical application have to be made thixotropic, a visually appealing smooth surface is no longer guaranteed. We therefore recommend that large-area wall coatings are not applied by rolling, and that this is instead restricted to the skirting area. To achieve a higher thickness, SILIKAL® R 62 resin can be applied several times after each previous coat has cured thoroughly. To ensure better dirt repulsion, SILIKAL® R 72 resin is required as the last top coat.

The mixture (without hardener) must be dispersed by means of a dissolver to eliminate lumps and can be stored stably for several months in small containers. The container must be stirred intensively before being used again.

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2. Thin coating 1 – 2 mm for moderate stresses

(Use in systems C, D)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 30 litre bucket	
1	SILIKAL® R 62 resin	47 %		20 kg	20 litres
2	SILIKAL® Filler SV	50 %		20 kg	approx. 22 litres
3	SILIKAL® Pigment Powder	3 %		1 kg	
	Total:	**100 %**	**Average consumption: 1.5 kg/m² per mm thickness**	**41.0 kg**	**approx. 27 litres**
4	SILIKAL® Hardening Powder	1 – 6 % related to item 1	See "Hardener dosages" table for quantities	200 – 1200 g	

Floorings under this system are suitable for mechanically well-structured concrete surfaces, particularly corridors, storage facilities, technical rooms, garages, laundry cellars etc.

3. Topping 3 – 4 mm

(Use in system C)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 30 litre bucket	
1	SILIKAL® R 62 resin	33 %		13 kg	13 litres
2	SILIKAL® Filler SV	65 %	1 sack	25 kg	approx. 22 litres
3	SILIKAL® Pigment Powder	2 %		1 kg	
	Total:	**100 %**	**Average consumption: 1.7 kg/m² per mm thickness**	**39 kg**	**approx. 23 litres**
4	SILIKAL® Hardening Powder	1 – 6 % related to item 1	See "Hardener dosages" table for quantities	130 – 780 g	

This variant is the most common industrial floor coating for a smooth surface finish. Layers of 4 mm are preferred, particularly for fork-lift truck and heavy rolling traffic.

Because of the thermoplastic nature of SILIKAL® R 62 resin, in the unsealed state the braking actions of conveyor vehicles can lead to tire marks at times of intensive stress which in simple cases can be eliminated by means of suitable cleaning agents. However, this can be avoided by driving appropriately or using white rubber tyres.

4. Colourless top coat

(Use in system D)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® R 62 resin	100 %		10 kg	10 litres
	Total:	**100 %**	**Average consumption: 600 g/m²**	**10 kg**	**10 litres**
2	SILIKAL® Hardening Powder	1 – 6 % related to item 1	See "Hardener dosages" table for quantities	100 – 600 g	

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5. Pigmented top coat

(Use in system D)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® R 62 resin	90 %		9 kg	9 litres
2	SILIKAL® Pigment Powder	10 %		1 kg	
	Total:	**100 %**	**Average consumption: 600 g/m²**	**10 kg**	**approx. 9.5 litres**
3	SILIKAL® Hardening Powder	1 – 6 % related to item 1	See „Hardener dosages“ table for quantities	90 – 540 g	

Characteristics of R 62 as delivered

Property	Measuring method	Approx. value
Viscosity at +20 °C	DIN 53 015	150 – 180 mPa · s
Flow time at +20 °C, 4 mm cup	DIN 51 211	40 – 50 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, 2 % pbw. hardening powder)	approx. 15 min.	
Application temperature	0 °C to +35 °C	

Characteristics of the self-levelling 3 - 4 mm flooring

Property	Measuring method	Approx. value
Compressive strength	DIN 1164	45 N/mm²
Tensile strength in bending	DIN 1164	25 N/mm²
Specific weight		1.7 g/cm³
Pot life at +20 °C		12 – 15 min.

Hardener dosages

Temperature	Hardening powder % pbw. *	Pot life approx. min.	Hardening time approx. min.
0 °C	6.0	20	50
+10 °C	5.0	20	45
+15 °C	3.0	15	40
+20 °C	2.0	15	40
+25 °C	1.5	12	35
+30 °C	1.0	12	30

* 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® Additive ZA	SILIKAL® Additive ZA	80
SILIKAL® Hardening Powder	SILIKAL® Hardening Powder	82 – 83
General processing information	AVH	85 – 88
The substrate	DUG	89 – 91
Fillers and pigments	FUP	92 – 95
Chemical resistance	CBK	96 – 97
Information on safety and protection	SUS	98 – 99
Storage and transport	LUT	100 – 102
General cleaning advice	ARH	103 – 104

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