

SILIKAL® R 63 resin

Reactive, slightly elasticized resin for self-levelling coatings
(certified according to AgBB assessment scheme)



SILIKAL® R 63 resin is a medium-viscosity methacrylic resin that is outstandingly suitable for self-levelling coatings of 2 – 4 mm thickness. It has been certified according to the AgBB scheme on less VOC emission specially necessary for indoor floors on private and public areas, such as supermarkets, living rooms, health and child care, museums, schools, offices etc. Visually appealing surfaces and systems can be developed when used in conjunction with a variety of fillers, pigments or decorative materials.

SILIKAL® R 63 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 63 resin is predominantly recommended for sprinkling coloured flakes (loosely or saturated) and for smooth universal shades. The surface is preferably applied with SILIKAL® R 73 resin.

Application

SILIKAL® R 63 resin is used as a binder in manufacturing various coating types and recipes. Possible substrates for interiors include concrete and cement screed. A variety of different systems can be formulated from SILIKAL® R 63 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.

Coating 2 – 4 mm

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 30 litre bucket	
1	SILIKAL® R 63 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 – 2 % related to item 1	See “Hardener dosages” table for quantities	130 – 260 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 63 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.

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Silikal product information

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Expect more from your floor.

Characteristics of R 63 as delivered

Property	Measuring method	Approx. value
Flow time at +20 °C, 6 mm cup	EN ISO 2431	25 – 35 sec.
Density D ₄ ²⁰	DIN 51 757	0.98 g/cm ³
Flash point	DIN 51 755	+10 °C
Pot life at +20 °C (100 g, 1.5 % pbw. hardening powder)		approx. 12 – 15 min.
Application temperature		10 °C to +30 °C

Characteristics of the self-levelling 2 - 4 mm flooring

Property	Measuring method	Approx. value
Compressive strength	DIN 1164	45 N/mm ²
Tensile strength in bending	DIN 1164	25 N/mm ²
Specific weight		1.7 g/cm ³
Pot life at +20 °C		12 – 15 min.

Hardener dosages

Temperature	Hardening powder % pbw. *	Pot life approx. min.	Hardening time approx. min.
+10 °C	2.0	17 – 20	50 – 60
+15 °C	2.0	15 – 18	40 – 50
+20 °C	2.0	12 – 15	40 – 50
+25 °C	1.5	10 – 12	35 – 40
+30 °C	1.0	10 – 12	30 – 40

* 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 63 - 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 ₊
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
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