SILIKAL® R 72 resin

Reactive, hard, medium-viscosity top coat resin for dry areas

Expect more from your floor.

SILIKAL® R 72 resin is a solvent-free, medium-viscosity 2-component methacrylic resin offering high hardness and low yellowing.

The rather lower reactivity presupposes a temperature of application of at least +10 °C (see also the **"Hardener dosages"** table below).

Application

SILIKAL® R 72 resin is used as a colourless, highly wear-resistant top coat for decorative smooth coatings on coloured flakes and coloured sand and as a pigmented top coat with enhanced flow properties. Because of the high hardness, elastic systems such as SILIKAL® RV 368 or SILIKAL® R 61 HW resin must not be worked over directly with SILIKAL® R 72 resin. In these cases an intermediate coat of SILIKAL® R 61 or SILIKAL® R 62 resin must be applied, as otherwise movement caused by temperature will lead to hairline cracks forming in the top coat.

Advice on application

Once moderately sized batches (5 – 10 kg) have been mixed with the necessary quantity of hardener as laid down in the **"Hardener dosages"** table, the resin is immediately poured onto the surface and applied crosswise, preferably by means of a paint roller. Although it is possible to spread it roughly with a rubber blade first, the dwell time of the still liquid resin until final levelling on a coloured flake surface must not be too long, as this may partly dissolve and leave colour tracks behind.

To ensure the best possible properties, the minimum and maximum coating thickness must be observed. Material consumption for smooth coatings is approx. 400 g/m² and on areas sprinkled with SILIKAL® Filler QS 0.7 – 1.2 mm approx. 500 g/m². The greater consumption means that a second coat can often be omitted. If the coating thickness is exceeded (more than 800 g/m²), the top coat will tend to flake.

Under braking strains the thermoplastic character of the surface may lead to tyre marks which in many cases can be removed again using suitable cleaning agents. It makes sense for the user to protect the surface against damage through careful use and care. Often it would be advisable to ensure that fork-lift trucks are driven appropriately, black tyres are exchanged for white ones or a surface care agent is used.

Pigmenting

To pigment, about 10 % pbw. of SILIKAL® Pigment Powder is normally added. To avoid lumps in the pigment, it must first be dispersed with the same quantity of resin by means of a dissolver to eliminate lumps. After the dispersion process the residual quantity of resin is added to the new pigment paste until the total content of the mix is again 10 %. You must make particularly sure that pigments which are not made by SILIKAL® are properly tested for their compatibility and storage stability. A small addition (approx. 10 %) of SILIKAL® Filler QM has also been proven to enhance the surface.

1. Colourless top coat

(Use in systems A, C)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® R 72 resin	100 %		10 kg	10 litres
	Total:	**100 %**	**Average consumption: 400 – 500 g/m²**	**10 kg**	**10 litres**
2	SILIKAL® Hardening Powder	1 – 4 % related to item 1	See "Hardener dosages" table for quantities	100 – 400 g	

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2. Pigmented top coat

(Use in systems A, C)

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	SILIKAL® R 72 resin	90 %		9 kg	9 litres
2	SILIKAL® Pigment Powder	10 %		1 kg	
	Total:	**100 %**	**Average consumption: 400 – 500 g/m²**	**10 kg**	**approx. 9.5 litres**
3	SILIKAL® Hardening Powder	1 – 4 % related to item 1	See “Hardener dosages” table for quantities	90 – 360 g	

Characteristics of R 72 as delivered

Property	Measuring method	Approx. value
Viscosity at +20 °C	DIN 53 015	120 – 150 mPa · s
Flow time at +20 °C, 4 mm cup	DIN 53 211	30 – 35 sec.
Density D_4^{20}	DIN 51 757	0.97 g/cm³
Flash point	DIN 51 755	+10 °C
Pot life at +20 °C (100 g, 2 % pbw. hardening powder)	approx. 12 min.	
Application temperature	+10 °C to +30 °C	

Characteristics of R 72 in the hardened state

Property	Measuring method	Approx. value
Density	DIN 53 479	1.18 g/cm³
Ultimate elongation	DIN 53 455	6 %
Shore-D	DIN 53 505	72 – 76 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	4.0	15	40
+15 °C	3.0	15	40
+20 °C	2.0	12	30
+25 °C	1.5	10	30
+30 °C	1.0	10	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”**.

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CE

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10[1)]

R 72 - 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	94 – 95
General processing information	AVH	97 – 100
Chemical resistance	CBK	108 – 109
Information on safety and protection	SUS	110 – 111
Storage and transport	LUT	112 – 114
General cleaning advice	ARH	115 – 116

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