SILIKAL® RE 55 resin

Reactive, high-viscosity primer for synthetic resin-modified cement substrates



SILIKAL® RE 55 resin is a solvent-free high-viscosity 2-component reactive resin based on EP which is used preferably as a barrier or insulating primer for synthetic resin-modified cement substrates. SILIKAL® RE 55 resin is absolutely essential as the first primer on these substrates if the surface is to be given a further methacrylic resin-based coating.

In contrast to normal methacrylic resin primers, SILIKAL® RE 55 resin is not subject to any hardening problems which may be caused by dispersant/emulsifying additives or other concrete additives, e. g. water-emulsifiable EP/PU coats. Other problematic contaminations such as rubber abrasion, carbon black additives in the substrate, remnants of carpet or tile adhesives and inhibiting epoxy resin hardeners in old coatings can be effectively primed with an insulating coat of SILIKAL® RE 55 resin without any hardening problems being expected in the methacrylic coating.

Application

To ensure perfect adhesion with the subsequent coating, SILIKAL® Filler QS 0.7 – 1.2 mm must be sprinkled liberally into the SILIKAL® RE 55 resin until saturation before the resin cures. When curing is complete, the excess quartz sand is brushed or vacuumed away and the surface can then be given a top coat. Low viscosity coating recipes can be applied directly. Higher-viscosity or highly-filled mortar systems, on the other hand, require a further methacrylic intermediate primer coat of SILIKAL® R 51, R 52 or RU 727 resin in order to close up any pores in the sprinkled sand so that no bubbles form and no partial separation can occur.

Advice on application

SILIKAL® RE 55 resin is supplied in two packing units (resin in a 20 kg hobbock and hardener in a 10 kg bucket). To apply, mix the two components together intensively for about 2 – 3 minutes with an agitator unit in the prescribed ratio of 100 : 50.

The substrate must conform to the rules of the art, i. e. be dry and free of oil and dust, have sufficient bearing and inherent strength for its use and be free of cementitious grout (shot/ball blasting, milling etc.).

The mixed primer is poured onto the substrate and initially spread roughly by means of rubber blades. Then the primer is rolled into the substrate under slight pressure using standard Perlon rollers until the pores are completely closed up and SILIKAL® Filler QS 0.7 – 1.2 mm is immediately sprinkled in liberally until saturation before the surface hardens. It may be necessary prime absorbent substrates again wet in wet before sprinkling the sand in. The pot life depends on the temperature and is generally around 20 minutes (+20 °C), while hardening takes some 6 – 8 hours (+20 °C). Only a perfectly hardened coat of SILIKAL® RE 55 should be overlayed with the next layer.

Under no circumstances may solvents be added to dilute or adjust the viscosity. Suitable solvents such as Silikal cleaning agents must be used to clean the tools.

SILIKAL® RE 55 resin has been adequately tested by Silikal and released for use; it is currently in the introductory phase. However, this does not release the user from his duty of care, in particular to test the product and its application for suitability, particularly in combination with other products or systems.

Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batc 30 litre	
1	SILIKAL® RE 55 A resin	67 %	1 packing unit Component A	20 kg	approx. 17.5 litres
2	SILIKAL® RE 55 B resin	33 %	1 packing unit Component B	10 kg	approx. 10 litres
	Total:	100 %	Average consumption: 400 g/m²	30 kg	approx. 27.5 litres

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Characteristics of RE 55 in summary

Mixing ratio	Component A (resin) = 100 parts by weight Component B (hardener) = 50 parts by weight	
Temperature range	min. +10 °C, max. +35 °C	
Maximum humidity	75 % air humidity 4 % substrate moisture	
Consumption	300 - $500\ g/m^2$ depending on the condition of the substrate	
Packaging	20 kg hobbock (resin component)10 kg bucket (hardener component)	

Reaction times (approx.)

	+10 °C	+20 °C	+30 °C
Pot life	40 minutes	30 minutes	20 minutes

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Other applicable documents	Data sheet	Page
General processing information	AVH	89 – 92
The substrate	DUG	93 – 95
Information on safety and protection	SUS	102 – 103
Storage and transport	LUT	104 – 106