

RINOL^{EP-QC209}

LOW-VISCOSITY EPOXY PRIMER RESIN



1 General Information

Product Description and Use

RINOL EP-QC 209 is a ready-to-use, low-viscosity, defoamed, two-component priming and mortar resin, and an excellent binding agent for producing solvent-free epoxy resin-based regulation coatings. Once mixed with the appropriate hardener, it can be used to prime mineral and absorbent substrates for RINOL systems (excluding polyester). RINOL EP-QC 209 is characterised by its excellent wetting and adhesion properties. It is suitable for use with residual moisture in cement systems of up to 4.0% and in anhydrite-bonded systems of up to 0.5% (measured by the CM method).

2 Laying Instructions

Substrate preparation

The substrate must have sufficient load-bearing capacity. We recommend a minimum strength equivalent to concrete class B25 or screed class ZE, ME or AE30.

The bond and adhesion of the epoxy resin to a mineral substrate depend on anchorage through roughness and good penetration of the substrate. High-strength, vacuumed, extremely smoothed or very dense concrete surfaces require more intensive preparation of the substrate. In principle, it must be checked whether the substrate is open-pore or porous, since in these cases two or more applications are necessary to achieve optimal pore closure.

It is essential to ensure there are no open pores to prevent bubbles forming in subsequent coatings. A sample should always be applied to a test area. This also applies to highly absorbent and/or porous substrates.

The substrate must be prepared by shot-peening. Coarse impurities can be removed by milling.

RINOL EP QC 209 can be applied directly to cement-bonded substrates with moisture content of up to 4.0% (measured by the CM method).

The substrate must have an adhesive pull strength of at least 1.5 N/mm². It must also be free from oily, fatty or release agent impurities, loose particles, etc. Any cracks or hollow spots must be properly remedied beforehand.

Ensure that no silicone-containing materials or other substances that could interfere with the reaction come into contact with RINOL EP QC 209 before or during the curing phase.

Processing

The product is supplied in two-component containers at the exact mixing ratio.

Before processing, the material must be heated to at least ambient temperature (i.e. room and floor temperature).

The B component should be emptied completely into the A component. After mixing for approximately 3–4 minutes using a suitable electric stirring tool, the mixture should be poured into a different container and stirred briefly again.

Primer:

The primer compound should be poured in portions onto the surface to be coated, and then spread using a spatula or rubber spreader. The primer should then be rolled using a short-pile fabric roller. It must be applied to form a film that is free from pores. For example, in the case of air-entrained concrete, a specific substrate preparation is required. Depending on the substrate, several applications may be necessary.

To coat vertical surfaces, add 1–3% RINOL X965 to the mixture. To improve interlayer adhesion, sprinkle the liquid primer with RINOL QS20 silica sand (0.3–0.8 mm; consumption approx. 0.5–1.0 kg/m²).



Technical data

Liquid mixture (A+B)

1	Density (23°C)	approx. 1.1 g/cm ³
2	Packaged unit size (2-component container)	25 kg containers or barrels
3	Shelf life/storage	12 months at 5–20°C always store above freezing and out of direct sunlight (even during transport)

Technical data

Cured material

1	Adhesive pull strength (DIN ISO 4624)	> 1.5 N/mm ²
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Technical data

Liquid mixture (A+B)

1	Processing time (20°C)	approx. 20–25 minutes
2	Processing/material/room temperature	approx. 15–25°C (min. 3 degrees above the dew point, even during laying and curing)
3	Material consumption: priming regulation coating: see "regula- tion coating" laying instructions	300–500 g/m ² consumption may vary depending on the substrate
4	Can be walked on (20 °C)	after 12–15 hours
5	Subsequent layer (20°C)	within 12–24 hrs
6	rel. humidity	< 75% (during the entire laying and curing phase)

Note:

- When working with levelling coatings do not sand in excess
- When working with the conductive layer (RINOL EP E480 or RINOL EP QC 483 AS), do not sand.

For filled regulation coatings, see the 'Regulation Coating' laying instructions.

Synthetic resin mortar:

Depending on the temperature, the binder/filler mixing ratio can be varied between 1:9 and 1:7. The synthetic resin mortar is applied in the usual manner to a primer scattered with approximately 1000 g/m² of RINOL QCR 20 silica sand in a minimum layer thickness of 8 mm. This is then spread, stripped and smoothed out.

If RINOL EP QC 209 is to be filled, the applicator should carry out a local test to ensure the desired result is achieved. The technical data may vary depending on the degree of filling/filler used.

Reworking

Before applying the next layer, all excess silica sand must be completely removed. If reworking the layer within 24 hours of application, further sanding of the primer is not necessary.

However, if the next layer is to be applied more than 24 hours after the primer has been applied, it must be covered entirely with RINOL QCR 20 silica sand (consumption approx. 0.5–1.0 kg/m²) or ground down accordingly, with the sanding dust then suctioned off.

When working with synthetic resin mortar, it is important to ensure that the primer is fresh, and that fire-dried silica sand (for example, 0.3–0.8 mm or 0.7–1.2 mm) is scattered over the fresh primer, depending on the layer thickness of the synthetic resin mortar.

Safety Measures

For information on how to handle the product, please refer to the relevant safety data sheet and the chemicals regulations regarding the handling of coating materials (M004/M023). Wear suitable protective clothing and goggles during processing.

Skin contact with liquid resins can harm health and may cause allergies.

Information on layering possibilities and the application of RINOL products can be found in the RINOL Technical Guide.

Note

The specification values provided are approximate and are not a guarantee of the product's properties. Consequently, no liability claims may be derived from the product data sheet.

EP resins are generally not colour-stable in the long term when exposed to UV rays and weathering. Surfaces exposed to chemical and mechanical stress will show signs of wear and tear. Regular maintenance is recommended in this case.

Consumption amounts, processing time, the time until the floor can be walked on, and the point at which load-bearing capacity is reached depend on temperature and the object in question.

Please note that only the latest version of the technical data sheet is valid and supersedes all previous versions.

Important note

In addition to ambient temperature, floor temperature is also very important. As a general rule, chemical reactions are slower at low temperatures. This extends the reworking time and the time until the floor can be walked on. Higher product viscosities also increase material consumption.

At higher temperatures, however, the chemical reactions are accelerated, reducing the reworking time and the time until the floor can be walked on.

The material should generally be protected against exposure to water during processing. Furthermore, it must be protected against direct exposure to water for approximately 24 hours following application (at 20 °C). During this period, exposure to water (e.g. dew or condensation) could lead to whitening (carbamate formation) on the surface, or the surface could become sticky at these points, which could impair adhesion to subsequent coatings.

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Legal note:


The technical data for the company's products has been compiled with due care. However, any recommendations or suggestions made with regard to the use of these products are made without guarantee as the conditions under which they are used are beyond the control of the Company. It is the responsibility of the customer to determine whether the products are suitable for the particular application and whether the conditions of use are appropriate for the particular product. No liability can therefore be derived from the product data sheet.

Please note that only the latest version of the data sheet is valid and replaces all previous versions. The technical data given are approximate values determined by us and do not constitute a guarantee of properties. Misprints, errors, translation errors and changes reserved. Please note that the information in the system datasheets may differ in different languages/countries. For further information, please visit our website at www.rinol.com

The technical data sheet does not exempt the user from carrying out his own application tests, if necessary, within the limits of his capabilities. Please refer to the RINOL Technical Guide for information on coating options and more detailed information on the installation of RINOL products.

CE labelling:

DIN EN 13813, 'Screed mortars, screed materials and screeds – Properties and requirements' (January 2003), specifies the requirements for screed mortars used in interior floor constructions. The standard also covers synthetic resin coatings and sealants. Products that comply with this standard are provided with the CE marking.

 RCR Flooring Products Italia S.r.l. Via Chiarugi 76/U I-45100 Rovigo	
10 ¹ EN 13813 SR-B1,5 -IR4	
Synthetic resin screed/coating for indoor use in buildings (structures according to technical data sheets)	
Fire behaviour:	BFL-S1
Water permeability:	NPD 2
Wear resistance (Abrasion Resistance):	NPD 2
Tensile bond strength:	B 1.5
Impact resistance	IR 4
Impact sound insulation:	NPD 2
Sound absorption:	NPD 2
Chemical resistance:	NPD 2

-1) the last two digits of the year in which the CE marking was affixed.

-2) NPD = No Performance Determined; characteristic value not specified

CE marking: 1504-2

Flooring systems subjected to mechanical stresses, and the products thereof,

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must comply with DIN EN 1504-2 and satisfy the requirements of DIN EN 13813.

DIN EN 1504-2, 'Products and systems for the protection and maintenance of concrete structures – Part 2: Surface protection systems for concrete', specifies the requirements for the surface protection methods 'hydrophobic impregnation', impregnation, and coating. The relevant data sheet is available on request.

European Regulation 2004/42 (Decopaint Directive)

The maximum VOC content (product category IIA/j, type SB) permitted by European Regulation 2004/42 is 500 g/l (limit in 2010) in the ready-to-use state. The maximum VOC content of RINOL EP QC 715 in its ready-to-use state is less than 500 g/l.