

1 General data

Product description / Application

RINOL EP-P204 is a ready-to-use, low-viscosity, transparent, mechanically resilient, waterproof, pore-filling 2-component primer based on solvent-free epoxy resin. The LEED v4 certified RINOL EP-P204 is very low in emissions.

After mixing with the corresponding hardener, RINOL EP-P204 can be used for the pore-tight priming of cementitious substrates for the RINOL*WHG* and RINOL*WHG Conductive* systems. The coating has good resistance to diluted alkalis, acids, aqueous salt solutions and lubricants.

The product is also suitable for the production of levelling and priming scratch coats as substrate preparation and for the production of epoxy resin screeds. To level floor unevenness or roughness depths > 0.5 mm and holes, a primer or scratch filler is used with RINOL EP P204 and quartz sand 0.1-0.3 mm (see production of scratch filler).

RINOL Systems

RINOL EP-P204 is the primer for the system:

- RINOL*WHG*
- RINOL*WHG Conductive*

2 Laying instructions

Substrate preparation

The substrate must be sufficiently stable, dry, firm and non-slip. We recommend a minimum strength corresponding to concrete C30/37 or screed strength class ZE, ME, AE30 (EN 13813 CT-C25-F4). The age of the cementitious substrate should be at least 28 days. It must also be free of separating and adhesion-reducing substances, such as dust, sludge, grease, rubber abrasion and paint residues, etc. Cracks and cavities must be properly removed beforehand.

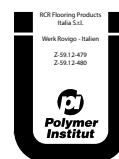
The bonding and adhesion of the epoxy resin to a mineral substrate is based on anchoring via the roughness depth and a good penetration capacity into the substrate. High-strength, vacuum-etched or extremely smoothed and very dense concrete surfaces require more intensive substrate preparation.

It is essential to check whether the substrate is porous, porous or similar, as in these cases two or more work steps are usually required to achieve optimum pore sealing. Pore sealing must always be ensured to prevent the formation of bubbles in the subsequent layers. In individual cases, a test surface must be created. This also applies to highly absorbent and/or porous substrates.

The substrate must be pre-treated by shot blasting. The material consumption may vary depending on the blasting pattern. Coarse impurities can be removed by milling.

RINOL EP-P204 can be applied directly to the cementitious substrate at substrate moisture levels of up to max. 4.0% (measured using the CM measuring method). The substrate must have an adhesive tensile strength of at least 1.5 N/mm².

Care must be taken to ensure that no substances containing silicone or other reaction-interfering substances come into contact with RINOL EP-P204 before and during the curing phase.



Technical data		
Liquid mixture (A+B)		
1	Container size (2-component container)	25 kg container
2	Shelf life / storage	12 months at 5-20°C, in any case (also during transport) frost-free, protect from direct sunlight

Technical data		
Liquid mixture (A+B)		
1	Density (20°C)	approx. 1.10 g/cm ³
2	Processing time (20°C)	approx. 20 - 25 minutes
3	Processing / material and room temperature	12-25°C (min. 3 degrees above the dew point even during installation and curing)
4	Material consumption	see processing
5	Walkability (23°C)	after approx. 12 - 15 hours
6	Subsequent coating (23°C)	within 12 - 24 hours
7	Full load-bearing capacity	after 7 days
8	Rel. air humidity	< 80% during the entire laying and curing phase

Technical data		
Cured material		
1	Adhesive peel strength (DIN ISO 4624)	> 1,5 N/mm ²
2	Shore D hardness (DIN EN 53505/ EN ISO 868)	approx. 75 - 80
3	Compressive strength (DIN EN 196 after 7 days/23°C)	approx. 65 N/mm ²
4	Flexural tensile strength (DIN EN 196 after 7 days/23°C)	approx. 33 N/mm ²

Processing

Before processing, the material must always be warmed to at least the ambient temperature (room and floor temperature) (approx. + 15°C) The B-component container must be completely emptied into the A-component container. After mixing with an electric stirrer (approx. 3 - 4 min), the mixture is decanted and stirred again briefly.

During application, ensure that the material is applied evenly to the prepared substrate by "flooding". Irregularities lead to capillary-active pores in the hardened primer film and favour the formation of bubbles, especially osmosis bubbles. A second coat of primer must be applied to ensure a pore-tight primer layer. Pore tightness can also be ensured by applying a second layer of a dense levelling compound.

This levelling compound must be prepared with the primer resin with the addition of quartz sand. When adding aggregates (e.g. quartz sand), it must be ensured that the aggregates are dry and also have a temperature of approx. +15° C.

Primer:

RINOL EP-P204 is applied with a rubber squeegee and rolled on evenly with a roller.

Consumption: approx. 300-500 g/m²

The fresh primer is sprinkled in a defined manner with quartz sand (grain size: 0.3 - 0.8 mm).

Consumption: approx. 300 g/m²

Attention: Do not sand when reworking with levelling coats

Preparation of the levelling/scratch coat

RINOL EP-P204 is mixed with quartz sand 0.1-0.3 mm in a ratio of 1 : 0.5 to produce the levelling/scratch coat.

Total mixture consumption: approx. 800 g/m²

The quartz sand is added to the previously homogeneously mixed and repotted resin and hardener components. Ensure that the liquid and solid components are evenly mixed.

Before application on vertical and inclined surfaces, the addition of RINOL fibre filler is recommended for levelling/scratch filling. The quantity to be added is approx. 2-4% by weight, depending on the inclination of the surface.

Attention: Do not sand when reworking with conductive layers

Recoating

Excess quartz sand must be completely removed before applying the subsequent coat. When recoating up to 24 hours after installation, the primer must be briefly sanded with fine sandpaper. If the primer is only to be re-coated after 24 hours, it must be scattered over the entire surface with RINOL QS20 quartz sand (consumption approx. 1 kg/m²) or sanded accordingly and the sanding dust vacuumed off.

Protective measures

For information on handling the product, please refer to the valid safety data sheet and the guidelines of the chemical industry on handling coating materials (M004/M023). Suitable protective clothing and safety goggles must be worn during processing.

Skin contact with liquid resins can lead to health problems and allergies.

Notes

Due care has been taken in compiling the technical data for the company's products. However, all 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 company's control. It is the responsibility of the customer to check whether the products are suitable for the respective application and whether the conditions of use are appropriate for the respective product. No liability claims can therefore be derived from

the product data sheet.

We would also like to point out that only the latest version of the data sheet is valid and replaces all older data sheets. 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 data sheets of the different languages / countries may differ. Further information can be found on our website at www.rinol.com

EP resins are generally not colour-stable in the long term under UV and weathering influences. Chemically and mechanically stressed surfaces are subject to wear and tear due to use. Regular maintenance is recommended. Consumption quantities, processing time, walkability and achievement of load-bearing capacity depend on temperature and object.

Please refer to the RINOL Technical Guide for layer structure options and more detailed information on the installation of RINOL products.

The technical data sheet does not exempt the user from carrying out his own tests - if necessary within the scope of his possibilities - with regard to applicability.

Important note

In addition to the ambient temperature, the floor temperature is of decisive importance. Chemical reactions are generally delayed at low temperatures. This extends the recoating and walkability times. The higher viscosity of the products also increases material consumption. At higher temperatures, the chemical reactions are shortened and the recoating and walkability times are reduced.

The material must always be protected from water during application. Furthermore, the material must be protected from direct contact with water for approx. 24 hours (at 20°C) after application. Within this time, exposure to water (e.g. also dew, condensation) can lead to white discoloration (carbamate formation) on the surface or the surface is sticky in these areas and this can severely impair adhesion to subsequent coatings.

If there is a longer waiting time of >24 hours between the individual work steps or if surfaces already treated with liquid synthetic resins are to be recoated after a longer period of time, the old surface must be cleaned well, sanded thoroughly and vacuumed. Applications that are not clearly mentioned in this technical data sheet may only be carried out after consultation and written confirmation with or by the application technology department of RCR Flooring Products Italia S.r.l.

Always protect against the effects of moisture on the back and from pressure, even during use.


Legal information:

Due to the different materials, substrates and deviating working conditions, no guarantee of a work result or liability can be assumed by RCR Flooring Products for whatever reason and / or legal relationship. In addition, the latest general terms and conditions of RCR Flooring Products Italia S.r.l. apply, which can be requested from us or viewed and printed out at www.rinol.it. We expressly reserve the right to make changes to the product specifications.

CE labelling:

DIN EN 13813 "Screed mortars, screed compounds and screeds - Properties and requirements" (Jan. 2003) specifies requirements for screed mortars used for indoor floor constructions.

Synthetic resin coatings and sealers are also covered by this standard. Products that comply with the above standard must be labelled with the CE mark.

 RCR Flooring Products Italia S.r.l. Via Chiarugi 76/U I-45100 Rovigo	
05 ¹ EN 13813 SR-B1,5-IR4	
1119-CPR-0833 09 EN 1504-2	

Synthetic resin screed/coating for indoor use in buildings (structures according to technical data sheets)	
Fire behaviour:	E
Water permeability:	NPD ²
Wear resistance (Abrasion Resistance):	NPD ²
Tensile bond strength (Bond):	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

LEED v4 certified

CE marking: 1504-2

Floor systems that are subject to mechanical stresses and whose products comply with DIN EN 1504-2 must also fulfil the requirements of DIN EN 13813. DIN EN 1504-2 "Products and systems for the protection and repair of concrete structures - Part 2:" "Surface protection systems for concrete" specifies the requirements for the surface protection methods "hydrophobic impregnation" impregnation and coating. If required, the corresponding data sheet can be requested.

EU Regulation 2004/42 (Decopaint Directive):

The maximum content of VOC (group LB: j) permitted in the EU regulation 2004/42 is 500g/l (stage 1 - limit 2007) : max 550g/l, (stage 2 - limit 2010) max 500 g/l) when ready for use. The maximum content of RINOL EP-P204 in ready to use condition is <500g/l VOC.

GIS Code: WGK RE 30

Further information on the GIS code is available from Wingis online at <https://www.wingisonline.de>