



### 1 General data

#### Product description / Application

RINOL EP-P222 is a ready-to-use, low-viscosity, 2-component coating compound based on solvent-free epoxy resin. After mixing with the appropriate hardener, RINOL EP-P222 can be used as a primer and scratch coat and/or sealer under asphalt pavements on concrete in accordance with TL/TP-BEL-EP of ZTV-Ing Part 7 Bridge Decking.

For concrete bridges, the requirements of ZTV-Ing apply. For other structures, it must be ensured that the concrete moisture on the surface is less than 4 M-%, for anhydrite-bound systems up to 0.5% (measured using the CM measuring method).

### 2 Laying instructions

#### Substrate preparation

The substrate must be sufficiently stable. The substrate for reworking must fulfil the requirements of ZTV-Ing., Part 7, Section 1.

The substrate must be pre-treated by shot blasting. Coarse impurities can be removed by milling.

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-treated or extremely smoothed and very dense concrete surfaces require more intensive substrate preparation. The substrate must always be free of all loose particles, dust, oil and other separating substances. The substrate must have an adhesive tensile strength of at least 1.5 N/mm<sup>2</sup>.

It must always be checked whether the substrate is open-pored, porous or similar, as in these cases 2 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.

Care must be taken to ensure that no substances containing silicone or other substances which may interfere with the reaction come into contact with RINOL EP-P222 before and during the curing phase.

#### Processing

The product is supplied in co-ordinated quantities. Before processing, the material must always be heated to at least ambient temperature (room and floor temperature).

The mixed material (Comp.A+Comp.B) must be mixed homogeneously in the appropriate mixing ratio for approx. 3 minutes and then repotted. It must then be mixed again briefly.

RINOL EP-P222 can be filled with mineral fillers on site. The aggregates must be premixed in the compulsory mixer in a graded grading curve. The freshly mixed binder is then added while the compulsory mixer is running and mixed until homogeneous. If prefabricated sand mixtures are used, complete bags must be used, as these tend to separate during transport.

RINOL EP-P222 is poured in portions onto the surface to be coated and spread e.g. with a chewing trowel or rubber squeegee. The primer should be

Technical data		
Liquid mixture (A+B)		
1	Container size	25 kg containers, 200kg drums, 1,000kg IBC containers
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 <sup>3</sup>
2	Mixing ratio	100 parts comp. A 33 parts comp. B
3	Processing time (20°C)	approx. 30 minutes
4	Processing / material and room temperature	8 - 30°C (min. 3 degrees above the dew point even during installation and curing)
5	Material consumption/working cycle (depending on substrate) Primer Sealer Scratch coat (filled 1:3)	approx. 300 - 500 g/m <sup>2</sup> approx. 600 - 1,000 g/m <sup>2</sup> approx. 1,900 g/m <sup>2</sup> Layer thickness
6	Walkability (23°C)	after approx. 12 hours
7	Subsequent coating (23°C)	approx. 12 hours
8	Rel. humidity	< 80% during the entire laying and curing phase

Technical data		
Cured material		
1	Adhesive peel strength (DIN ISO 4624)	> 1,5 N/mm <sup>2</sup>
2	Shore D hardness (ISO 868-1985)	approx. 85

re-rolled with a short-pile plush roller.

The coating must be applied in a film-forming and non-porous manner, e.g. air-entrained concrete requires special substrate preparation. Depending on the substrate, several coats may be necessary. The necessary scattering must be carried out with fire-dried quartz sand. The grain size must be adapted to the requirements (e.g. RVS). In such cases, please contact a RINOL technical advisor for coordination.

#### Priming on concrete:

The primer is applied to the prepared concrete surface in one work step with approx. 300-500g/m<sup>2</sup>. The mixed material must therefore be poured onto

the prepared concrete surface. The material must then be given sufficient time (5-10 minutes) to penetrate into the pores of the concrete substrate before it is rolled on with a lambskin roller to ensure that the material is evenly distributed. To prevent the liquid RINOL EP-P222 from running back into the recesses, sprinkle with fire-dried QS 30 (max. 1kg/m<sup>2</sup> not in excess!) immediately after rolling.

### Filled filler / levelling mortar for recesses up to 0.5 cm:

Indentations up to 0.5cm must be levelled by scratch filling with RINOL EP-P222 and fire-dried quartz sand in a graduated grading curve. After preparing the substrate, prime the concrete surface with approx. 400g/m<sup>2</sup> RINOL

EP-P222. The reaction resin is applied generously with a roller. Puddle formation should be avoided as far as possible.

Then apply the scratch coat fresh-in-fresh (see ZTV-InG. Part 1, Section 1 + 2). Site-specific conditions and weather and deadline-related reasons allow the primer to be applied with RINOL QS 20 and apply the scratch coat later (see ZTV-ING). The scratch coat must be spread with fire-dried RINOL QS 20 so that there is "grain next to grain". Scattering in excess should be avoided.

After the scratch coat has hardened, remove any non-adhering grit by sweeping it out sharply.

NOTE: After application of the last coat, a waiting time of one day at 23°C or 3 days at 10°C average ambient temperature must be observed until the application of welding membranes.

### Screening for scratch levelling:

approx. 30 mass % quartz powder

approx. 30 mass-% quartz sand d.K 0.1-0.5mm (RINOL QS 10)

approx. 40 mass % quartz sand d.K. 0.7-1.2mm (RINOL QS 30)

### Sealing on concrete:

After application of the primer, in this case with scattering of QS30 in excess, remove excess QS20 as soon as it has set. RINOL EP P222 is then applied evenly in a second coat of at least 600g/m<sup>2</sup> to close the pores, to avoid material build-up, to ensure that the scattering is evenly wetted and to produce a uniformly rough and apparently closed surface. This surface is not scattered.

## Protective measures

For information on handling the product, please refer to the applicable 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 application.

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](http://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.

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

## 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](http://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 <sup>1</sup> 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:	BFL-S1
Water permeability:	NPD <sup>2</sup>
Wear resistance (Abrasion Resistance):	NPD <sup>2</sup>
Tensile bond strength (Bond):	B 1,5
Impact resistance	IR 4
Impact sound insulation:	NPD <sup>2</sup>
Sound absorption:	NPD <sup>2</sup>
Chemical resistance:	NPD <sup>2</sup>

- 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

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 VOC content permitted in EU Regulation 2004/42 (product category IIA / j type sb) is 500g/l when ready for use (limit 2010). The maximum content of RINOL EP-P222 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>.