RINOL*EP-C529*

CHEMICAL RESISTANT SELF-LEVELLING COATING

1 General data

Product description / Application

RINOL EP-C529 is a pigmented, ready-to-use, solvent-free, mechanically and chemically highly resistant (see list of chemical resistance) 2-component coating made of high-quality epoxy resin. RINOL EP-C529 is very low in emissions.

After mixing with the appropriate hardener, RINOL EP-C529 is used to produce tough, hard coating systems that are easy to clean and have very good resistance to organic and inorganic acids, alkalis, mineral oils, petrol and solvents.

RINOL EP-C529 is used as a coating for reinforced concrete, concrete, plaster and screed surfaces in production and storage areas, HBV systems in accordance with § 63 WHG (Water Resources Act) without crack bridging.

2 Laying instructions

Substrate preparation

The substrate must be sufficiently load-bearing. The surface tensile strength of the surface to be primed must be at least 1.5 N/mm² on average and the compressive strength at least 25 N/mm². The compatibility with the old coating must be checked by the applicator. We recommend creating test areas here. The substrate must be clean and free of separating agents.

It must always be checked whether the substrate is open-pored, porous or similar, as this can lead to the formation of bubbles or pores in the coating. This must be checked by the applicator and eliminated if necessary.

Before applying RINOL EP-C529, the substrate is primed with a primer RINOL EP-P202, RINOL EP-P201, RINOL EP-P206 or RINOL EP-P210 according to the respective product data sheets. RINOL EP-C529 is applied directly onto the primer or onto an EP levelling coat, depending on the desired evenness.

If the surface is very rough or uneven, it must be levelled with RINOL EP-P202, RINOL EP-P201 or RINOL EP-P206 before coating (see the relevant product data sheets).

The top coat RINOL EP-C529 must be applied no later than 24 hours at (20°C) after the previously applied coat or the previous coat has been sprinkled with quartz sand. The substrate must be film-forming and free of pores, as otherwise bubbles and/or pores may form due to the air rising from the substrate.

Care must be taken to ensure that no substances containing silicone or other reaction-interfering substances come into contact with RINOL EP-C529 before and during the curing phase.

Processing

The product is supplied in 2-component containers in coordinated quantities. Before processing, the material must always be warmed to at least ambient temperature (room and floor temperature).
The A-component must be stirred for 2-3 minutes, then the B-component is completely emptied into the A-component. Both components are mixed homogeneously for at least 2-3 minutes using a suitable electric mixer. Avoid stirring in air. The mixture should be decanted and then stirred again briefly.

Cleanroom® Suitable Materials

Technical data		
Liquid mixture (A+B)		
1	Container size (2-component container)	25 kg container
2	Colours	RINOL colour chart, others on request
3	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 (23°C)	approx. 1.39 g/cm³
2	Processing time (23°C)	approx. 20 - 25 minutes
3	Processing / material and room temperature	12-25°C (min. 3 degrees above dew point also during installation and curing)
4	Material consumption self levelling sealing	 approx. 1600 g/m² - 2500 g/m² approx. 250-300 m²
5	Walkability (23°C)	after approx. 16 hours
6	Subsequent coating (23°C)	within 12-24 hours
7	Rel. humidity	< 80% during the entire laying and curing phase

Technical data		
Cured material		
1	Adhesive peel strength (DIN ISO 4624)	approx. 1,5 N/mm²
2	Abrasion resistance (DIN 53754 / ASTM D 1044)	65 mg/1.000 cycles
3	Full load-bearing capacity mechanical (23°C) chemical (23°C)	 after 7 days after 28 days

Self levelling

For a layer thickness of 1mm levelling coat (at 23°C), we recommend applying the material unfilled onto the hardened primer. For a layer thickness of 1mm to 2mm levelling coat (at 23°C), the material can be filled with max. 30% quartz sand (e.g. Geba sand - other quartz sands can have a negative effect on deaeration, levelling, etc.).

RINOL EP-C529 is poured onto the surface to be coated and applied with a suitable notched trowel. The liquid coating must be deaerated with a spiked roller. The applicator wears spiked shoes to be able to walk on the wet coating.

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Sealing

Primer: RINOL EP primer 0.30 - 0.5 kg/m^2
Sealer: RINOL EP-C529 (1/2 coats) 0.25 - 0.3 kg/m^2
The primer must form a continuous dense, closed resin film. To optimise hiding power on rough surfaces, RINOL EP-C529 can be thixotroped with up to 0.5% RINOL X965 levelling agent.
For light colours (e.g. yellow, orange), 2 coats are recommended for good hiding power.
Unevenness of the substrate and dirt ingress cannot be concealed by thin sealers.
The material is spread with a rubber squeegee and then rolled evenly with a short pile roller in a cross pass.
The installer must carry out his own tests on site.

Recoating

When reworking up to 24 hours after installation, the top layer does not need to be sanded. 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.

Maintenance

To maintain the properties of the synthetic resin floor covering in the long term, we recommend regular maintenance. Please ask for our RINOL care instructions.

Colour shade

Almost all colour shades are possible. Slight colour deviations are unavoidable due to the raw material. Colour deviations may occur permanently with light colour tones, e.g. in the yellow or orange range, due to filling with quartz sand. Epoxy resins are generally not permanently colour-stable or tend to yellow when exposed to UV and weathering. Artificial UV light can also change the colour and also lead to yellowing. The technical properties remain unchanged.

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.
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 discolouration (carbamate formation) on the surface or the surface is sticky at these points and this can impair adhesion to subsequent coatings.

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 any reason and / or legal relationship whatsoever. 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.

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CE 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:	B_{FL}-S1
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

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-C529, ready for use 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

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