

RINOL^{EP-C523}

SELF-LEVELLING, PIGMENTED TOPCOAT

RINOL

1 General data

Product description / Application

RINOL EP-C523 is a pigmented, ready-to-use 2-component coating compound made of high-quality epoxy resin. RINOL EP-C523 is used to produce seamless, non-porous floor coatings that can withstand heavy transport and pedestrian traffic.

RINOL EP-C523 can still be filled with quartz sand (e.g. Geba Sand from Dornier 0.08 - 0.25 mm at 23°C - other quartz sands can have a negative effect on deaeration, levelling etc.) as a self-levelling topcoat in a ratio of 1:0.7.

The product can also be used as a sealer or skirting colour, in which case it is not filled with QS.

After mixing with the appropriate hardener, RINOL EP-C523 is used as a topcoat for industrial floors with high demands on mechanical and chemical stability, is easy to clean and has good resistance to fuels and lubricants, most solvents and chemicals.

The product can also be supplied unpigmented for colouring with colour pastes on request.

2 Laying instructions

Substrate preparation

The substrate must be sufficiently stable. 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. Dense or hard surfaces can lead to adhesion problems if the substrate is inadequately prepared. Special measures may be required here. We recommend creating test areas here. The substrate must be clean and free of separating agents.

It is essential to check whether the substrate is porous, 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-C523, 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-C523 is applied directly onto the primer or onto an EP levelling coat, depending on the desired evenness. The topcoat RINOL EP-C523 must be applied no later than 24 hours at (20°C) after the previously applied layer or the previous layer has been sprinkled with quartz sand. The substrate must be film-forming and non-porous, otherwise bubbles and/or pores may form due to the air rising from the substrate.

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

Care must be taken to ensure that no substances containing silicone or other substances that may interfere with the reaction come into contact with RINOL EP-C523 before and during the curing phase.



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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 (20°C)	approx. 1.40 g/cm ³
2	Processing time (20°C)	approx. 20 - 25 minutes
3	Processing / material and room temperature	15-25°C (min. 3 degrees above dew point also during installation and curing)
4	Material consumption binder per mm layer thickness, depending on substrate properties	approx. 1,800 - 2,000 g/m ² (unfilled A+B)
5	Walkability (20°C)	after approx. 24 hours
6	Subsequent coating (20°C)	within 12-24 hours
7	Rel. air humidity	< 80% during the entire laying and curing phase

Technical data		
Cured material (without addition of quartz sand)		
1	Full load-bearing capacity mechanical (20°C) chemical (20°C)	after 7 days after 28 days
2	Compressive strength (DIN EN 196 / ASTM C 109)	approx. 70 N/mm ²
3	flexural tensile strength (DIN EN 196 / ASTM C 190)	approx. 45 N/mm ²
4	Adhesive peel strength (DIN ISO 4624)	> 1,5 N/mm ²
5	Shore D hardness (DIN 53505 / ASTM D 2240)	approx. 75

Processing

The product is supplied in 2-component containers in co-ordinated 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.

Top layer:

The quartz sand (weight ratio 1:0.7 at 23°C) must be stirred in homogeneously. RINOL EP-C523 is poured onto the surface to be coated and applied with a Polyplan No. 48 notched trowel in the appropriate layer thickness (approx. 2 mm). In order to achieve uniform layer thicknesses, the toothed strips of the trowel should be checked regularly and replaced if necessary. The surface must be treated/deaerated crosswise with a spiked roller. The applicator wears spiked shoes for this purpose.

RINOL EP-C523 can also be used without additional quartz sand (as a self-levelling top coat with toothed strip Polyplan No. 25 in approx. 1 mm layer thickness).

For sealing or skirting colour, apply with a plush roller.

When producing scattering or chip coatings, the scattering or chip scattering must be carried out within the processing time. The same applies to processing with a spiked roller.

Sealing

Primer: RINOL EP-P201 or RINOL EP-P202 0.30 - 0.5 kg/m²

Sealer: RINOL EP-C523 (2 coats) 0.25 - 0.3 kg/m²

The primer must form a continuous dense, closed resin film. To optimise hiding power on rough surfaces, RINOL EP-C523 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.

Reworking

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, thoroughly sanded 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 shades of colour, 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.

RINOLEP-C523

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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 in these areas 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 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 interior 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 (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-C523, 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>