



1 General data

Product description / Application

RINOL EP-C523AS is a pigmented, ready-to-use, solvent-free 2-component coating made of high-quality epoxy resin. After mixing with the appropriate hardener, RINOL EP-C523AS is used in combination with the conductive layer RINOL EP-E480 to produce tough, electrically conductive coating systems in accordance with the DIN EN 1081 standard, which are easy to clean and have good resistance to fuels and lubricants as well as most solvents and many chemicals.

RINOL EP-C523AS is used as a dissipative surface covering for industrial floors with high requirements for the dissipation of electrostatic charges, especially in explosion and fire protection areas.

RINOL Systems

RINOL EP-C523AS is the top layer for the RINOL system:

- RINOLCONDUCTIVE

2 Installation 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, the compressive strength at least 25 N/mm². 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.

RINOL EP-C523AS is applied to the conductive layer RINOL EP-E480. The conductive top coat RINOL EP-C523AS must be applied no later than 24 hours after the previously applied coat.

Care must be taken to ensure that no substances containing silicone or other reaction-interfering substances come into contact with RINOL EP-C523AS before and during the curing phase.

Application

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 is stirred for at least 2 minutes, then the B-component is completely emptied into the A-component. Both components are mixed with a suitable electric agitator for at least 2 - 3 minutes; if necessary, a maximum of 30% quartz sand can be added (e.g. Geba Sand from Dorfner 0.08-0.25 mm at 23°C - other quartz sands can have a negative effect on deaeration, levelling etc.).

Avoid stirring in air. The mixture must be repotted and then stirred again briefly.

RINOL EP-C523AS is poured onto the surface to be coated with a Polyplan No. 25 notched trowel (use a No. 48 notched trowel to check the layer thickness when filling with quartz sand). The liquid coating must be rolled

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) Density (20°C, filled 1:0.3)	approx. 1,50 g/cm ³ approx. 1,70 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 (20°C) filled unfilled	approx. 1,600 g/m ² + 300 g/m ² Quartz sand 0.08-0.25 mm approx. 1,800 g/m ² - approx. 2,000 g/m ²
5	Walkability (20°C)	after approx. 24 hours
6	Subsequent coating (20°C)	within 12-24 hours
7	Rel. humidity	< 80% during the entire laying and curing phase

Technical data		
Cured material		
1	Compressive strength (DIN EN 196 / ASTM C 109)	78 N/mm ²
3	Flexural tensile strength (DIN EN 196 / ASTM C 190)	approx. 45 N/mm ²
2	Adhesive peel strength (DIN ISO 4624)	approx. 2,0 N/mm ²
4	Shore D hardness (DIN 53505 / ASTM D 2240)	approx. 83
5	Earth leakage resistance (DIN EN 1081)	< 1x 10 ⁶ Ω (see page 2)
6	Light fastness (DIN EN ISO 105-B02)	7 (scale 1-8, 8=very good)
7	full load capacity mechanical (20°C) chemical (20°C)	after 7 days after 28 days

RINOLEP-C523AS v4.22 en-01

on with a spiked roller. The applicator must wear spiked shoes to be able to walk on the wet coating.

Electrostatic behaviour

Earth conductor resistance $R_{G, sys}$ ^{1,2)}

Characteristic value	Curing	Test standard
< 10 ⁶ Ω	7 days /23°C	DIN EN 1081

¹⁾ This product fulfils the requirements of TRBS 2153

²⁾ The measurement results may vary depending on the ambient conditions (e.g. temperature, humidity) and the measuring device.

The conductivity is tested in accordance with the status report "Dissipative coatings for industrial floors" from Deutsche Bauchemie e.V.

Area of the coating system	Number of measurements
< 10m ²	1 measurement / m ²
10m ² - 100m ²	10 - 20 measurements
> 100m ²	10 measurements / 100m ²

The measuring points must be at least 50cm apart. If the required measurement value is not achieved at one point, further measurements must be taken within a radius of approx. 50cm.

Maintenance

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

We would like to point out that the conductivity of conductive coating systems can be impaired by the application of care substances.

Colour shade

Almost all colour shades are possible. Slight differences in colour are unavoidable due to different production methods and variations in raw materials. This must be taken into account during coating work. Demarcated surface sections must be carried out with the same production batch (see batch no. on the delivery container). Due to the addition of carbon fibres to achieve conductivity, it is not possible to adjust the colour shade exactly. In addition, colour deviations may occur with light shades, e.g. yellow or orange, due to filling with quartz sand. Under UV and weathering influences, epoxy resins are generally not permanently colour-stable or tend to yellow. Artificial UV light can also change the colour tone 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 build-up options and more detailed information on the installation of RINOL products.

Once the carbon fibre-filled top layer has hardened, individual carbon fibre threads may stand up in the hardened surface. This does not affect the functionality in any way.

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 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-B2,0-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 2,0
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-C523AS 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>