

RINOL *EP-C523AS*

Our products are "total solid" in accordance with the test method of Deutsche Bauchemie e.V.

LEED-certified

1 General Information

Product Description and Use

RINOL EP-C523AS is a pigmented, solvent-free ready-to-use 2-component coating made from high-quality epoxy resin. After mixing with the appropriate hardener, RINOL EP-C523AS is used together with the conductive layer RINOL EP-E480 to form hard and tough, electrically conductive flooring coating systems in accordance with DIN EN 1081 which can be easily cleaned and exhibit a high level of resistance to fuels and lubricants as well as most solvents and chemicals. RINOL EP-C523AS is used as a conductive top coat for industrial floors which must satisfy high demands in terms of their ability to dissipate electrostatic charges, in particular in explosion and fireproof areas. Resistance to earth $R_E < 10^6$ ohms.

RINOL Systems

RINOL EP-C523AS is used as a top coat for the following RINOL system:

RINOL *CONDUCTIVE*

2 Laying Instructions

Substrate Preparation

The surface should have an adhesive pull strength of at least 1.5 N/mm².

The substrate must be clean and free from release agents.

In general it must be checked whether the substrate is open-pore, porous, etc. since in these cases bubbles and pores may be formed in the coating. This should be checked by the fabricator and remedied if necessary.

RINOL EP-C523AS is applied onto the conductive layer RINOL EP-E480. The RINOL EP-C523AS conductive cover layer must be laid no later than 24 h after the previously applied layer.

Care should be taken to ensure that no silicone-containing or other materials which could interfere with the reaction come into contact with RINOL EP-C523AS both before and during the curing phase.

Technical Data

Liquid mixture (A+B)

1. Density (20°C) filled 1:0.3	approx. 1.50 g/cm ³ approx. 1.70 g/cm ³
2. Packaging unit size (2-component container)	20 kg
3. Colours	see RINOL colour chart
4. Shelf life/storage	6 months at 5–20°C, store above freezing and out of direct sunlight (even during transport)

Technical Data

Cured material

1. Bending tensile strength (DIN EN 196 / ASTM C 190)	38 N/mm ²
2. Compressive strength (DIN EN 196 / ASTM C 109)	78 N/mm ²
3. Adhesive pull strength (DIN ISO 4624)	> 2.0 N/mm ²
4. Abrasion resistance (DIN 53754 / ASTM D 1044)	68 mg/1000 cycles
5. Shore-D hardness (DIN 53505 / ASTM D 2240)	83
6. Resistance to earth (DIN 51953 / DIN EN 1081)	< 1 x 10 ⁶ ohms
7. Light-fastness (DIN EN ISO 105-B02)	7 (scale 1–8, 8=very good)

Technical Data

Liquid mixture (A+B)

1. Processing time (20°C)	approx. 20–25 min.
2. Processing/material/room temperature:	15–25°C (min. 3 degrees above the dew point, even during laying and curing)
3. Material consumption (20°C) necessary to fill with silica sand (approx. 0.08 - 0.25mm)	filled: Binding agent approx. 1,6 kg/m ² + 0,3 kg/m ² silica sand unfilled: Binding agent approx. 1,8 - 2,0 kg/m ²
4. Rel. humidity	< 80% during the entire laying and curing phase
5. Can be walked on (20°C)	after approx. 24 hours
6. Subsequent layer (20°C)	within 12–24 hours
7. Full load-bearing capacity mechanical stress (20°C) chemical stress(20°C)	after 7 days after 28 days

Manufacturer:

RINOL Italia Research & Technology Srl, via V. Chiarugi 76/U, I-45100 Rovigo Tel +39-0425-411200 Fax +39-0425-411222

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Processing

Before processing, the material must be heated at least to ambient temperature (room and floor temperature).

The A-component must be stirred for at least 2 minutes, and then the B-component is emptied completely into the A-component. Both components must be mixed homogeneously for at least 2-3 minutes using a suitable electric stirring tool and, if necessary, the appropriate amount of silica sand must be added immediately after. The inclusion of air in the stirring process must be avoided. The mixture should be poured into a different container and stirred again briefly.

RINOL EP-C523AS is poured onto the surface to be coated and spread over the area using a serrated spatula Polyplan no. 25 (layer thickness control). The liquid coating must be rerolled using a spiked roller. The fabricator must wear shoes with a spiked sole in order to walk on the wet coating.

Maintenance

In order to preserve the properties of the synthetic resin floor covering in the long term, we recommend regular maintenance. Please ask for a copy of our RINOL maintenance guide for further information.

Please note that the conductivity of conductive coating systems may be impaired by the application of maintenance substances.

Safety measures

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

Skin contact with liquid resins can be harmful to health and may lead to allergies.

Possibilities for layering and more detailed information regarding the laying of RINOL products can be found in the RINOL Technical Guide.

Colour

Slight variations in colour are unavoidable owing to the raw materials. Due to the addition of carbon fibres in order to achieve conductivity, it is not possible to set the colour precisely. In addition, light colours (yellow, orange, etc.) may exhibit slight differences in colour owing to the addition of silica sand. Sample tests are recommended. Epoxy resins are not generally colour-stable in the long term under the effects of UV and weathering and tend to turn yellow. Artificial UV light can also modify the colour and could also lead to yellowing. The technical properties remain.

It should therefore first be applied to test surfaces. The values specified may change with varying temperature and ambient conditions.

Note

The specification values given are approximate values ascertained by us and do not constitute guaranteed properties. Consequently, no liability claims may be derived from the product data sheet.

Please also note that only the most recent version of the technical data sheet is valid and replaces all previous data sheets.

Important note

In addition to ambient temperature, floor temperature is of key importance.

As a basic principle the chemical reactions are delayed at low temperatures. The reworking time and the time until the floor can be walked on are thus extended.

Higher viscosities of the products also cause an increase in material consumption.

At higher temperatures the chemical reactions are shortened and the reworking time and the time until the floor can be walked on are reduced.

The material should generally be protected during processing against exposure to water. Furthermore, the material must be protected against direct exposure to water for approx. 24 hours (at 20 °C) following application. During this period exposure to water (for example dew, condensation) could lead to whitening (carbamate formation) on the surface or the surface could become sticky at these points and this could impair adhesion to subsequent coatings.

As a basic principle, protect against the infiltrating action of moisture from the rear face, including during use.

Legal note:

Owing to the different materials, substrates and differing working conditions, no guarantee in terms of result or adhesion for whatever reason and/or legal nature can be assumed by RINOL.

For the rest, the most recent general terms of business of RINOL Italia Research & Technology and RINOL GmbH apply and can be requested from us or viewed, in their most recent version, at www.rinol.com and printed out. We reserve the right to make changes to the product specifications.


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CE marking:

DIN EN 13813 "screed mortars, screed materials and screeds - properties and requirements" (Jan. 2003) specifies requirements of screed mortars which are used for floor constructions in interior spaces. This standard also covers synthetic resin coatings and sealants. Products which conform to the above-mentioned standard are provided with the CE marking.

 RINOL Italia Research & Technology Srl 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 internal use in buildings (superstructures in accordance with techn. data sheets)	
Reaction to fire	B _{FL-s} 1
Water permeability	NPD ²
Abrasion resistance	NPD ²
Bond	B 2.0
Impact resistance	IR 4
Impact sound insulation	NPD ²
Noise absorption:	NPD ²
Chemical resistance	NPD ²

-1) the last two numbers of the year in which the CE marking was applied

-2) NPD = no performance determined;

CE marking: 1504-2

Flooring systems which are subjected to mechanical stresses and products thereof which comply with DIN EN 1504-2 must also satisfy the requirements of DIN EN 13813.

DIN EN 1504-2 "products and systems for the protection and maintenance of concrete structures – part 2: surface protection systems for concrete" specifies the requirements for the surface protection methods "hydrophobing impregnation", impregnation and coating. The relevant data sheet can be requested as necessary.

European Regulation 2004/42 (Decopaint Directive)

The maximum content of VOC (product category IIA/ j type sb) as permitted by European Regulation 2004/42 is 500g/l (limit 2010) in the ready-to-use state. The maximum content of RINOL EP C523AS in the ready-to-use state is < 500 g/l VOC.

GIS Code: WGK RE 1

Further information regarding the GIS code can be obtained from Wingis online at <http://www.wingis-online.de/wingisonline/>

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