



1 General data

Product description / Application

RINOL PU-C540 is a coloured, ready-to-use, solvent-free 2-component coating compound made of high-quality polyurethane resin.

After mixing with the appropriate hardener, RINOL PU-C540 is used in conjunction with the conductive layer RINOL EP-E480 to produce tough, electrically conductive floor coatings in accordance with DIN EN 1081, which are easy to clean and have good resistance to fuels and lubricants, most solvents and chemicals.

RINOL PU-C540 is used as a dissipative top coating for industrial floors with high requirements for the dissipation of electrostatic charges. Earth leakage resistance $R_E < 1 \times 10^6 \Omega$.

Express reference is made to the yellowing tendency of PU resins!

2 Installation instructions

Substrate preparation

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.

RINOL PU-C540 is applied on top of RINOL EP-E480. The conductive top coat RINOL PU-C540 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 PU-C540 before and during the curing phase.

Application

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

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

The A component must be stirred for at least 1 - 2 minutes. The B component is then completely emptied into the A component. Both components must be mixed homogeneously for at least 2 - 3 minutes using a suitable electric mixer. Avoid stirring in air. The mixture should be decanted and stirred again briefly.

RINOL PU-C540 is poured in portions onto the surface to be coated and applied with a notched trowel (notched trowel no. 25, layer thickness control) to cover the entire surface. To ensure a uniform coating thickness, the notched trowels must be changed regularly. The liquid coating must be deaerated with a spiked roller.

The applicator wears spiked shoes to be able to walk on the wet coating. Increased material consumption can impair conductivity.

Technical data		
Liquid mixture (A+B)		
1	Container size (2-component container)	25 kg container
2	Colours	RINOL colour chart
3	Shelf life / storage	6 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. 1.35 g/cm ³
2	Working time (23°C)	approx. 30 minutes
3	Processing / substrate temperature	15-25°C (min. 3 degrees above the dew point even during laying and curing)
4	Material consumption	approx. 1,600 - 1,800 g/m ²
5	Walkability (20 °C)	after 24 hours
6	Rel. humidity	< 75% during the entire laying and curing phase

Technical data		
Cured material (A+B)		
1	Flexural tensile strength (DIN EN 196)	60 N/mm ²
2	Compressive strength (DIN EN 196)	60 N/mm ²
3	Shore A hardness (DIN 53505 / ASTM D 2240)	approx. 72
4	Earth leakage resistance DIN 51953	< 1 × 10 ⁶ Ω

Electrostatic behaviour

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

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

¹⁾ The measurement results may vary depending on the ambient conditions (e.g. temperature, humidity) and measuring device.

The conductivity is tested in accordance with the status report "Dissipative coatings for industrial flooring" 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.

Reworking

When reworking up to 24 hours after installation, the surface layer does not need to be sanded. Subsequent reworking is only possible after careful sanding and subsequent vacuuming of the sanding dust, as otherwise adhesion problems may occur.

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.

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.

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. PU 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 tone and also lead to yellowing. The technical properties remain unchanged.

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

Chemically and mechanically stressed surfaces are subject to wear 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. During application, care must be taken to ensure that no drops of sweat or water get into the fresh coating surface (foaming). Furthermore, the material must be protected from direct contact with water for approx. 24 hours (at 20°C) after application.

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 coated again 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. We expressly reserve the right to make changes to the product specifications.

CE labelling:

DIN EN 13813 "Screed mortars, screed compounds and screeds - Characteristics 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:	NPD ²
Water permeability:	NPD ²
Wear resistance (Abrasion Resistance):	NPD ²
Tensile bond strength:	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) when ready for use is 500g/l (limit 2010). The maximum content of RINOL PU-C540 in ready-to-use condition is <500g/l VOC.

GIS Code: PU 40

Further information on the GIS code is available from Wingis online at <https://www.wingisonline.de>