# RINOL*EP-E480*

**LEED-certified**

Our products are “total solid” in accordance with the test method of Deutsche Bauchemie e.v.

## 1 General Information

### Product Description and Use

RINOL EP-E480 is a conductive, water-dispersed, solvent-free ready-to-use 2-component coating compound made from high-quality epoxy resin. Once mixed with the appropriate hardener, RINOL EP-E480 forms a conductive layer for coating systems with the cover layers RINOL EP-C540, RINOL EP-C560 and RINOL EP-S640. RINOL EP-E480 is used as a conductive layer for industrial floorings which meet the high requirements on electrostatic discharge.

### RINOL Systems

RINOL EP-E480 is the conductive layer for the following RINOL systems:

RINOL***CONDUCTIVE***
RINOL***DESIGN conductive***

## 2 Laying Instructions

### Substrate Preparation

RINOL EP-E480 is applied onto a very even, unsanded, closed-pore levelling layer. The conductive coating should be laid no later than 24 h after the previously applied layer. If laid later, this is only possible following careful grinding of the substrate. The substrate must be clean and free from release agents.
As a matter of principle 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.
Copper bands are first adhered onto the prepared, very even substrate and are to be connected to the equipotential bonding by an electrician. The bands are covered with a gauze strip.

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 E480 both before and during the curing phase.

**Technical data**

***Liquid mixture (A+B)***

| | |
|---|---|
| 1. Density (20°C) | approx. 1.06 g/cm$^3$ |
| 2. Packaging unit size (2-component container) | 18 kg |
| 3. Colour | Black |
| 4. Shelf life/storage | 3 months at 5–20°C, store **above freezing** and out of direct sunlight (even during transport) |

**Technical data**

***Cured material***

| | |
|---|---|
| 1. Adhesive pull strength (DIN ISO 4624) | > 1.5 N/mm$^2$ |
| 2. Resistance to earth (DIN EN 1081) | < 2 x 10$^4$ ohms |

**Technical data**

***Liquid mixture (A+B)***

| | |
|---|---|
| 1. Processing time (20°C) | approx. 20–25 minutes |
| 2. Processing/material/room temperature: | 15–25°C (min. 3 degrees above the dew point, even during laying and curing) |
| 3. Material consumption | approx. 100-120 g/m$^2$ |
| 4. Rel. humidity | < 80% during the laying and curing phase |
| 5. Can be walked on (20°C) | after approx. 8 hours |
| 6. Subsequent layer (20°C) | within 8–24 hours |

**Manufacturer:**
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## Processing
The product is supplied in 2-component containers in the exact mixing ratio.
Before processing, the material must be heated at least to ambient temperature (room and floor temperature).
The A-component must be emptied completely into the previously briefly stirred B-component and homogenised using a mechanical stirring tool for approx. 2-3 minutes. 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-E480 is poured onto the surface to be coated and spread very thinly using a rubber spreader (consumption approx. 100–120 gr/m$^2$). The floor is then rerolled using a short-pile fur fabric roller. Care must be taken to spread the conductive layer uniformly in order to achieve a uniform, effective conductivity and perfect hardening. Sand or fixing agent must not be added to the mixture under any circumstance. The conductive layer must not be sprinkled with silica sand.

## Reworking
The next layer must be applied at 20°C within 24 hours. The RINOL EP-E480 conductive layer must not be ground down.

## 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 detailed information about the application of RINOL products can be found in the RINOL Technical Guide.

## Note
The specification values given are approximate values ascertained by us and do not constitute a guarantee of properties. Consequently, no liability claims may be derived from the product data sheet.
EP resins are not generally colour-stable in the long term under the effects of UV and weathering.

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.

CE

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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 | $B_{FL}$-S1 |
| Water permeability | NPD [2] |
| Abrasion resistance | NPD [2] |
| Bond | B 1.5 |
| 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 E480 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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