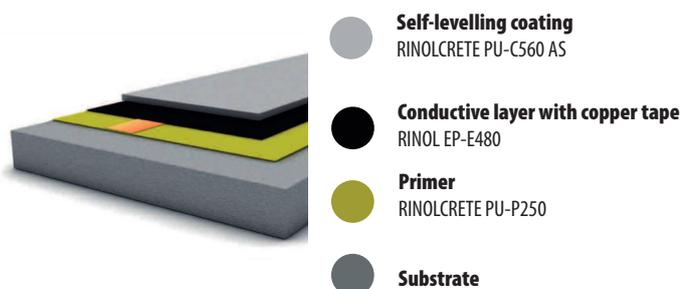


## 1. System description

RINOLCRETE CONDUCTIVE is a three-layer polyurethane cement system that combines safe electrostatic discharge for sensitive environments with high chemical and thermal resistance. Ideal for medium to heavy-duty use.

## 2. System composition



## 3. Areas of application

The RINOLCRETE CONDUCTIVE system is specifically designed to be applied in various types of industrial environments, adapting to the needs of several sectors, including:

- Pharmaceutical industry
- Chemical plants
- Food and beverage processing plants
- Warehousing and logistic
- Cold storage and refrigerated areas
- Aerospace and aviation industry
- Electronics industry

## 4. Properties

- Very good chemical resistance
- Electrically conductive
- Durable and long lasting
- Thermal shock resistant
- Hygienic and easy to clean
- Jointless

## 5. Certifications

RINOLCRETE CONDUCTIVE system is certified to meet high quality standards:

Synthetic resin screed material according to EN 13813:2002

Coating for surface protection of concrete according to EN 1504-2:2004

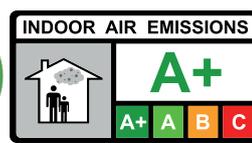
DIN EN 1081 Determination of the electrical resistance

DIN EN 61340 Protection of electronic devices from electrostatic phenomena

DIN 51130 Determination of the anti-slip property

HACCP International approval for food industry

Low VOC emitting materials EUROFINs INDOOR AIR COMFORT GOLD



## 6. Technical data

The RINOLCRETE CONDUCTIVE system provides detailed technical data, including physical and mechanical properties:

Technical Data		
1	Thickness	3 - 6 mm
2	Thermal resistance	-25 to +90 °C with a thickness of 6mm
3	Compressive strength (DIN EN 196 / ASTM C 109)	65 N/mm <sup>2</sup>
4	Flexural strength (DIN EN 196 / ASTM C 190)	16 N/mm <sup>2</sup>
5	Adhesive strength (DIN ISO 4624)	> 1,5 N/mm <sup>2</sup> (concrete failure)
6	Coefficient of thermal expansion (DIN EN 1770 / ASTM C531)	2.1 X 10 <sup>-5</sup> °C <sup>-1</sup>
7	Water absorption (CP.BM 2/67/2)	0 ml
8	Resistance to earth (DIN EN 1081)	< 1 x 10 <sup>6</sup> Ω
9	Earth conductor resistance R <sub>g</sub> (DIN EN 61340-4-1)	R <sub>g</sub> < 10 <sup>9</sup> Ω
10	BVG Walking test (DIN EN 61340-4-5)	< 100 V
11	Slip resistance (DIN 51130)	R9 - R10

## 7. Chemical Resistance

The RINOLCRETE CONDUCTIVE floors, under ambient temperature conditions, demonstrate resistance to:

Weak mineral acids, such as hydrochloric, nitric, phosphoric, and sulfuric acids.

Organic acids like acetic and lactic acid

Alkaline substances, including sodium hydroxide up to 50% concentration.

Solvents such as ethanol, isopropanol and acetone

Industrial detergents and disinfectants

Inorganic salts like chlorides, sulphates and nitrates

## 8. Available colours

The RINOLCRETE CONDUCTIVE system is available in a wide range of colours to meet the aesthetic requirements of any installation, such as: light grey, medium grey, beige, red, green, yellow, blue, cream, orange.

## 9. Application Instructions

### 9.1. Substrates

9.1.1 Suitable substrates are concrete, polymer modified concrete or screeds,

anhydrite or magnesite.

**9.1.2** The substrate should have a minimum tensile strength of 1.5 N/mm<sup>2</sup> and compressive strength of 25 N/mm<sup>2</sup> measured to an approved national standard.

**9.1.3** The substrate should be visibly dry. For concrete and polymer modified concrete, the moisture content should not exceed 8% by weight when measured according to a recognised standard. For anhydrite or magnesite substrates, moisture contents up to 0.8% by weight are acceptable.

**9.1.4** The substrate must be clean and free from dust and loose particles. All traces of contaminants such as oils, fats, greases, paint residues, chemicals, algae and laitance should be removed.

## **9.2. Preparation**

**9.2.1** The preferred method of surface preparation is vacuum blasting. Other methods such as scabbling, grit blasting or grinding may be used but are generally less satisfactory.

## **9.3. Priming**

**9.3.1** The primer is mixed using an electric mixer, taking care to avoid the inclusion of air. When homogeneous, the mixture is poured onto the prepared surface and spread using a Kaub spatula or rubber spreader. Material consumption is 300 - 800 g/m<sup>2</sup> depending on the roughness of the substrate.

**9.3.2** Dry quartz sand (RINOL QS-20) is scattered on the wet primer at a rate of 500 - 800 g/m<sup>2</sup> to ensure good adhesion between the coats.

**9.3.3** RINOL primers must not be applied when the temperature falls or is expected to fall within 3 °C of the dew point.

## **9.4. Application of the conductive layer**

**9.4.1** The conductive layer RINOL EP-E480 should be applied when the primer is hardened but not completely cured. This will normally be after 12 - 15 hours.

**9.4.2** Before applying the conductive layer, remove excess silica sand and vacuum the primer. Copper tapes are fixed to the surface of the primer.

**9.4.3** Mix the two components of RINOL EP-E480 using an electric mixer, taking care to avoid the inclusion of air. This mixture is then poured onto the surface of the levelling layer and spread with with a short pile roller at a rate of 100 - 120 g/m<sup>2</sup>.

**9.4.4** RINOL EP-E480 must not be applied when the temperature falls or is expected to fall within 3 °C of the dew point.

## **9.5. Application of the conductive top coat**

**9.5.1** The conductive top coat RINOLCRETE PU-C560 AS should be applied when the conductive layer has hardened but not cured. This will normally be after 8-10 hour

**9.5.2** The four components of the conductive body coat RINOLCRETE PU-C560 AS are mixed with an electric mixer, taking care to avoid the inclusion of air. When homogeneous, pour the mixture onto the surface of the conductive layer and spread with a serrated trowel. The material consumption should be approx. 1900 g/m<sup>2</sup>/mm. Maximum thickness 6mm. The teeth of the notched trowel must be replaced regularly to ensure uniform thickness.

**9.5.3** RINOLCRETE PU-C560 AS must not be applied when the temperature falls or is expected to fall within 3 °C of the dew point.

## **10. Specification clauses for RINOLCRETE CONDUCTIVE**

All products must be applied and cured at temperatures between 12 and 25°C and relative humidity between 40 and 80%.

The primer shall be RINOLCRETE PU-P250 , applied at a rate of 300 - 800 g/m<sup>2</sup> to ensure complete sealing of the substrate surface.

Dry quartz sand (RINOL QS-20) shall be broadcast into the wet primer at a rate of 500 - 800 g/m<sup>2</sup>.

Copper strips are fixed to the primer.

The conductive layer shall be RINOL EP-E480, applied at a rate of 100 - 120 g/m<sup>2</sup>.

The body coat shall be RINOLCRETE PU-C560 AS, applied at a rate of 1900 g/m<sup>2</sup>/mm. Maximum thickness 6mm

## **11. Maintenance**

The RINOLCRETE CONDUCTIVE system is easy to maintain and clean. To ensure the system's longevity and performance, it is essential to follow the provided maintenance instructions. This may include regular cleaning with suitable products to remove dirt and residues, periodic inspection of the floor for signs of wear, and repair or replacement of damaged areas if necessary. With proper maintenance, the RINOLCRETE CONDUCTIVE system can provide many years of reliable service.

## **12. Safety**

Safety is a priority at RCR Flooring Products Italia S.r.l. We provide information on safety and precautions during the application of the RINOL systems. This may include the use of personal protective equipment during application, adequate ventilation, prevention of exposure to chemicals, and proper disposal of product waste. It is important to follow all safety guidelines to ensure a safe working environment and maintain the integrity of the systems.

## **13. Health and Safety Measures**

Consult the latest valid Material Safety Data Sheet (MSDS) for the products that are part of the system and the Chemical Industry Guidelines on the Handling of Coating Materials (M004/M023) for information on the handling of the products. Wear suitable protective clothing such as gloves and goggles during application.

Skin contact with liquid resins can cause health damage and allergies. Once cured properly, the product is not hazardous.

## **14. Customer Service**

At RCR Flooring Products Italia S.r.l., we pride ourselves on providing exceptional customer service. Our team of experts are on hand to answer your questions, provide technical advice and help you choose the RINOL systems that best suit your needs. We also provide application information to ensure that our systems are installed correctly and deliver optimum performance.

## **15. Legal notice**

The technical data for the Company's products and systems have been compiled with due care. However, any 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 control of the

Company. It is the responsibility of the customer to determine whether the products are suitable for the particular application and whether the conditions of use are appropriate for the particular product. No liability can therefore be derived from the product data sheet.

Please note that only the latest version of the data sheet is valid and replaces all previous versions. 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 datasheets may differ in different languages/countries. For further information please visit our website at [www.rinol.com](http://www.rinol.com).

The technical data sheet does not exempt the user from carrying out his own application tests, if necessary, within the limits of his capabilities. Please refer to the RINOL Technical Guide for information on coating options and more detailed information on the installation of RINOL products.

## 16. CE Marking

The individual products that make up the system are certified according to DIN EN 13813 "Screed materials and floor screeds - Screed materials - Properties and requirements" (January 2003) and EN 1504-2. These standards specify the requirements for screed mortars used in internal floor constructions. Resin coatings and sealants are also covered by these standards. Products complying with the mentioned standards must have the CE mark.