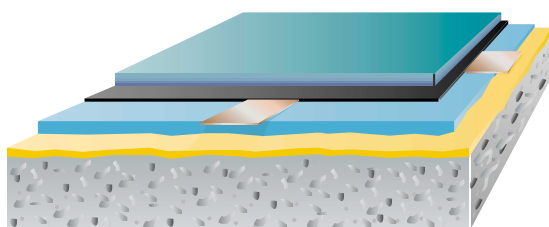







RINOL **CONDUCTIVE**

Versatile, hard wearing and electrically safe



-  Conductive top coat
-  Conductive layer with copper tape
-  Levelling layer
-  Primer
-  Substrate

System description

A four layer electrically conductive epoxy resin floor coating system for concrete and similar substrates.

Applied thickness approximately 4 mm.

Maximum service temperature

60 °C

Colour range

Available in 10 standard colours.

See the RINOL Colour Chart for details.

Benefits

- low odour during application
- electrically conductive with minimal use of copper tape
- hard wearing and long lasting
- smooth easy to clean finish
- non-dusting
- seamless
- good chemical resistance

Areas of use

- explosion proof areas
- operating theatres
- clean rooms
- power stations
- transformers and electricity sub-stations
- electronics industry
- helipads

Physical properties

Compressive strength 73 N/mm²

DIN EN 196/ASTM C 109

Flexural strength 45 N/mm²

DIN EN 196/ASTM C 190

Adhesive strength > 3.5 N/mm²

DIN ISO 4624

Abrasion resistance

(Taber CS10 wheel) 78 mg/1000 cycles

DIN 53754/ASTM D 1044

Shore D hardness 83

DIN 53505/ASTM D 2240

Coefficient of

thermal expansion 107 x 10⁻⁶/°K

DIN 50014

Resistance to earth < 1 x 10⁶ Ω

DIN 51953/DIN EN 1081

Colour stability (scale 1-8, best=8) 6

DIN EN ISO 877

RINOL CONDUCTIVE

System description

A four layer electrically conductive epoxy resin floor coating system for concrete and similar substrates. The primer is normally **RINOL EP-P200**. The levelling layer is **RINOL EP-L300**. The conductive layer is **RINOL EP-E480** containing copper tape. The conductive top coat is **RINOL EP-C540**. The applied thickness is approximately 3 – 4 mm.

Method statement

1. Substrates

- 1.1 Suitable substrates are concrete, polymer modified concrete or screeds, anhydrite or magnesite.
- 1.2 The substrate should have a tensile (pull-off) strength of at least 1.5 N/mm² when measured according to a recognised national standard.
- 1.3 Substrates should be visibly dry. For concrete and polymer modified concrete the moisture content should not exceed 4 % by weight when measured according to a recognised standard. For anhydrite or magnesite substrates moisture contents up to 0.8 % by weight are permissible.
- 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.

2. Preparation

- 2.1 The preferred method of surface preparation is vacuum shot blasting. Other methods such as scabbling, grit blasting or grinding can be used but are generally less satisfactory.

3. Priming

- 3.1 The primer is mixed using an electric mixer taking care to avoid the inclusion of air. When homogeneous the mix is poured onto the prepared surface and spread using a Kaub spatula or rubber spreader. Material consumption will be 250 – 500 g/m² depending upon substrate roughness.
- 3.2 Onto the wet primer dry silica sand (**RINOL QS-20**) is scattered at a rate of 800 – 1200 g/m² to ensure good intercoat adhesion.
- 3.3 RINOL primers must not be applied if the temperature falls or is expected to fall to within 3 °C of the dew point.

4. Application of the levelling layer

- 4.1 The levelling layer **RINOL EP-L300** should be applied once the primer has hardened but not completely cured. This will normally be after 12 – 15 hours.
- 4.2 The two components of **RINOL EP-L300** should be mixed using an electric mixer taking care to avoid the inclusion of air. When the mix is homogeneous a mixture of dry silica sands (1 part **RINOL QS-10**, 3 parts **RINOL QS-20**) should be added at a rate of 20 parts sand to 100 parts **RINOL EP-L300** and mixed again until homogeneous. This mix is then poured onto the primed surface and spread using a spatula, flattening knife or trowel at a rate of 800 – 1200 g/m².
- 4.3 **RINOL EP-L300** must not be applied if the temperature falls or is expected to fall to within 3 °C of the dew point.

5. Application of the conductive layer

- 5.1 The conductive layer **RINOL EP-E480** should be applied once the levelling layer has hardened but not completely cured. This will normally be after 12 – 15 hours.
- 5.2 Copper tapes as required are fixed to the surface of the levelling layer and covered with gauze strips.
- 5.3 The two components of **RINOL EP-E480** should be mixed using an electric mixer taking care to avoid the inclusion of air. This mix is then poured onto the levelling coat surface and spread using a rubber spatula at a rate of 70 – 90 g/m². It should then be rolled using a short pile roller.
- 5.4 **RINOL EP-E480** must not be applied if the temperature falls or is expected to fall to within 3 °C of the dew point.

6. Application of the top coat

- 6.1 The conductive top coat **RINOL EP-C540** should be applied once the conductive layer has hardened but not cured. This will normally be after 8 – 10 hours.
- 6.2 The top conductive coat **RINOL EP-C540** is mixed using an electric mixer taking care to avoid the inclusion of air. When homogeneous the mix is poured onto the conductive layer surface and spread using a serrated spatula. Material consumption should be 1600 – 1800 g/m². To ensure a uniform thickness the teeth of the serrated spatula must be replaced regularly.
- 6.3 **RINOL EP-C540** must not be applied if the temperature falls or is expected to fall to within 3 °C of the dew point.
- 6.4 At 20 °C **RINOL CONDUCTIVE** can be walked on after 18 to 24 hours; will reach full mechanical resistance after 7 days and full chemical resistance after 28 days.

Specification clauses for RINOL CONDUCTIVE

- 1) The primer shall be **RINOL EP-P200** or equivalent applied at a rate of 250 – 500 g/m² in such a manner as to ensure complete sealing of the substrate surface.
- 2) Dry silica sand (**RINOL QS-20**) shall be broadcast into the wet primer at a rate of 800 – 1200 g/m².
- 3) The levelling layer shall be **RINOL EP-L300** filled with dry silica sand at a rate of 20 parts sand to 100 parts resin. The silica sand shall be 1 part **RINOL QS-10**, 3 parts **RINOL QS-20**. The levelling layer shall be applied at a rate of 800 – 1200 g/m².
- 4) Copper strips as required shall be fixed to the levelling layer and covered with gauze.
- 5) The conductive layer shall be **RINOL EP-E480**. The conductive layer shall be applied at a rate of 70 – 90 g/m².
- 6) The conductive top coat shall be **RINOL EP-C540** applied at a rate of 1600 – 1800 g/m².

IMPORTANT

Whilst all reasonable care is taken in compiling technical data on the company's products, all recommendations or suggestions regarding the use of such products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to satisfy himself that each product is fit for the purpose for which he intends to use it and that the actual conditions of use are suitable.