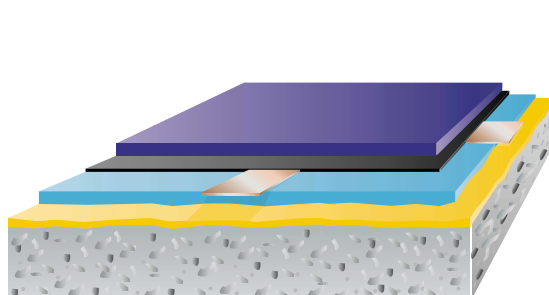







RINOLETEC

Designed for the needs
of the electronic industry



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

System description

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

Applied thickness 3 – 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
- protects electrostatic sensitive devices (ESD)
- meets electronics industry standards
- minimal use of copper tape
- hard wearing and long lasting
- smooth easy to clean finish
- non-dusting
- good chemical resistance
- seamless

Areas of use

- computer chip manufacture
- semi-conductor assembly
- mobile phone manufacture
- automobile assembly
- production of measuring devices

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

Resistance to earth $7.5 \times 10^5 < R_E < 10^9 \Omega$

DIN EN 61340 / DIN VDE 0100

Colour stability (scale 1-8, best=8) 7

DIN EN ISO 877

RINOLETEC

System description

A four layer electrically dissipative 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-E445** containing copper tape. The dissipative top coat is **RINOL EP-C545**. 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 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 coat

- 4.1 The levelling coat **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 should be applied once the levelling coat 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 coat and covered with gauze strips.
- 5.3 The two components of **RINOL EP-E445** should be mixed using an electric mixer taking care to avoid the inclusion of air. When the mix is homogeneous dry silica sand **RINOL QS-10** should be added at a rate of 15 parts sand to 100 parts resin and mixed again until homogeneous. This mix is then poured onto the levelling coat surface and spread using a Kaub spatula at a rate of 110 – 140 g/m². It should then be rolled using a short pile roller.
- 5.4 **RINOL EP-E445** must not be applied if the temperature falls or is expected to fall within 3 °C of the dew point.

6. Application of the top coat

- 6.1 The dissipative top coat **RINOL EP-C545** should be applied once the conductive layer has hardened but not cured. This will normally be after 8 – 10 hours.
- 6.2 The dissipative top coat **RINOL EP-C545** 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-C545** 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 RINOLETEC can be walked on after 18 – 24 hours. It will reach full mechanical properties after 7 days and full chemical resistance after 28 days.

Specification clauses for RINOLETEC

- 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 coat 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 coat shall be applied at a rate of 800 – 1200 g/m².
- 4) Copper tapes as required shall be fixed to the levelling coat and covered with gauze.
- 5) The conductive layer shall be **RINOL EP-E445** filled with dry silica sand at a rate of 15 parts sand to 100 parts resin. The silica sand shall be **RINOL QS-10**. The conductive layer shall be applied at a rate of 110 – 140 g/m².
- 6) The dissipative top coat shall be **RINOL EP-C545** 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.