

RINOL *HEAVYDUTY*

The floorcoating system
for severe physical stress



System description

A five layer epoxy resin floor coating system reinforced with glass fibre fabric for concrete and similar substrates. Applied thickness approximately 5 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
- crack bridging capability
- highly impact resistant
- will resist thermal shock
- smooth and easy to clean finish
- good chemical resistance
- seamless

Areas of use

- heavy duty industrial floors
- engineering workshops
- military facilities
- railway workshops
- aeronautical industry

Physical properties

Compressive strength 75 N/mm²

DIN EN 196/ASTM C 109

Flexural strength 46 N/mm²

DIN EN 196/ASTM C 190

Adhesive strength > 3.5 N/mm²

DIN ISO 4624

Abrasion resistance

(Taber CS10 wheel) 80 mg / 1000 cycles

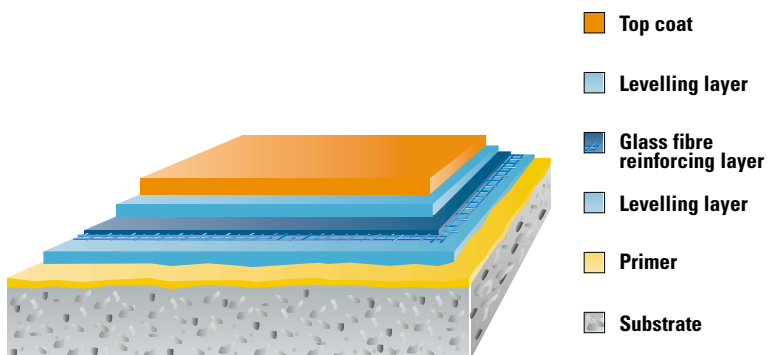
DIN 53754/ASTM D 1044

Shore D hardness 80

DIN 53505/ASTM D 2240

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

DIN EN ISO 877



RINOL HEAVYDUTY

System description

A five layer epoxy resin floor coating system for concrete and similar substrates. The primer is normally **RINOL EP-P200**. The first levelling layer is **RINOL EP-L300**. The reinforcing layer is **RINOL** glass fibre fabric impregnated with **RINOL EP-L320**. The second levelling layer is **RINOL EP-L300**. The top coat is **RINOL EP-C500**. The applied thickness is approximately 5 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 first levelling layer

- 4.1 The first 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 resin 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 Onto the wet levelling layer dry silica sand (**RINOL QS-20**) is scattered at a rate of approximately 500 g/m² to ensure good intercoat adhesion.
- 4.4 **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 reinforcing layer

- 5.1 The reinforcing layer should be applied once the first levelling layer has hardened but not completely cured. This will normally be after 12 – 15 hours.
- 5.2 Before application of glass fabric excess silica sand should be removed and the levelling layer should be ground and vacuum cleaned.

- 5.3 RINOL glass fibre fabric (270 g/m²) is placed onto the first levelling layer taking care to ensure that edges are abutted accurately leaving no gaps.
- 5.4 The impregnating resin **RINOL EP-L320** is mixed using an electric mixer taking care to avoid the inclusion of air. When homogeneous the mix is poured onto the glass fabric and spread using a Kaub spatula. It is then rolled using a short pile mohair roller to remove all air bubbles. Material consumption should be approximately 600 – 1000 g/m².
- 5.5 Onto the wet reinforcing layer dry silica sand (**RINOL QS-20**) is scattered at a rate of 600 – 1000 g/m² to ensure good intercoat adhesion.
- 5.6 **RINOL EP-L320** 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 second levelling layer

- 6.1 The second levelling layer is applied in exactly the same manner as the first levelling layer, only excess silica sand has to be removed and the reinforcing layer should be ground and vacuum cleaned. Onto the wet levelling layer silica sand (**RINOL QS-20**) is scattered at a rate of approx. 1000 g/m².

7. Application of the top coat

- 7.1 The top coat **RINOL EP-C500** should be applied once the second levelling layer has hardened but not completely cured. This will normally be after 12 – 15 hours.
- 7.2 Before application of the top coat excess silica sand should be removed and the second levelling layer should be ground and vacuum cleaned.
- 7.3 The top coat **RINOL EP-C500** is mixed using an electric mixer taking care to avoid the inclusion of air. When homogeneous the mix is poured onto the levelling layer surface and spread using a serrated spatula. Material consumption should be approximately 1600 g/m². In order to ensure a uniform thickness the teeth of the serrated spatula must be replaced regularly.
- 7.4 **RINOL EP-C500** must not be applied if the temperature falls or is expected to fall to within 3 °C of the dew point.
- 7.5 At 20 °C **RINOL HEAVYDUTY** 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 HEAVYDUTY

- 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 first 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 first levelling layer shall be applied at a rate of 800 – 1200 g/m².
- 4) Dry silica sand (**RINOL QS-20**) shall be broadcast into the wet first levelling layer at a rate of approximately 500 g/m².
- 5) The reinforcing layer shall be RINOL glass fibre fabric (270 g/m²) impregnated with **RINOL EP-L320** applied at a rate of 600 – 1000 g/m².
- 6) Dry silica sand (**RINOL QS-20**) shall be broadcast onto the wet reinforcing layer at a rate of approximately 600 – 1000 g/m².
- 7) The second levelling layer shall be **RINOL EP-L300** filled with dry silica sand at a rate of 30 parts sand to 100 parts resin. The silica sand shall be 1 part **RINOL QS-10**, 3 parts **RINOL QS-20**. The second levelling layer shall be applied at a rate of 800 – 1200 g/m².
- 8) Dry silica sand (**RINOL QS-20**) shall be broadcast into the wet second levelling layer at a rate of approximately 1000 g/m².
- 9) The top coat shall be **RINOL EP-C500** applied at a rate of approximately 1600 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.