

RINOLDURALIT heavy duty

The superhard floor for the toughest uses

System description

A two layer superhard magnesite based system for concrete and similar substrates. Applied thickness 15 - 20 mm as a single layer.

Colour range

Available in 7 colours.
See the RINOLDURALIT Colour Chart for details.

Benefits

- resistant to extreme mechanical loads
- extremely wear resistant
- easy to maintain
- excellent oil and solvent resistance
- electrically conductive
- seamless

Areas of use

- Heavy to ultra-heavy duty industrial floors
- heavy engineering
- steel pressing
- tracked vehicle traffic
- paper and printing works

Physical properties

Compressive strength 80-90 N/mm²
DIN EN 196/ASTM C 109

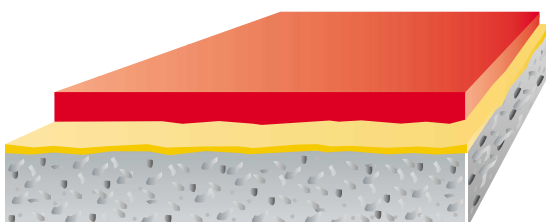
Flexural strength 16-21 N/mm²
DIN EN 196/ASTM C 190

Surface hardness 200-220 N/mm²
DIN EN 13813

E modulus 9000-29000 N/mm²
DIN 18555-4

Thermal conductivity 0.41-0.70W/m °C
BS 874

Resistance to earth < 10⁶ Ω
DIN 51953/DIN EN 1081



■ Magnesite wearing layer

■ Bonding layer

■ Substrate

RINOLDURALIT heavy duty

System description

A two layer self smoothing magnesite based system for concrete and similar substrates. An epoxy based bonding layer of **RINOL EP-B900** is used to ensure adhesion to the substrate. The wearing layer is **RINOLDURALIT heavy duty** with an applied thickness of 15 - 20 mm.

Method statement

1. Substrates

- 1.1 Suitable substrates are concrete and polymer modified concrete or screeds.
- 1.2 The substrate must be flat with no falls.
- 1.3 The substrate should have a tensile (pull-off) strength of at least 1.5 N/mm² when measured according to a recognised national standard.
- 1.4 The substrate should be visibly dry with a moisture content not exceeding 4% when measured according to a recognised standard.
- 1.5 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. Application of the bonding layer

- 3.1 The bonding layer **RINOL EP-B900** is mixed using an electric mixer taking care to avoid the inclusion of air. Whilst mixing water is added slowly until the mix becomes milky. It is then applied to the prepared surface using a broom. Material consumption should be 100 - 200 g/m² depending upon substrate roughness.
- 3.2 **RINOL EP-B900** must not be applied if the temperature falls or is expected to fall to below 10 °C.

4. Application of the magnesite wearing layer

- 4.1 **RINOLDURALIT heavy duty** should be applied once the bonding layer has turned clear but is still sticky. This will normally be after 1 - 6 hours depending on climatic conditions.
- 4.2 The **DURALIT DU-600** lye (magnesium chloride) is dissolved in an equal weight of water.
- 4.3 The **DURALIT DU-300** solid, **DURALIT DU-500** magnesite and **DURALIT QS 10** quartz sand are then dry blended. When blending is complete the liquid lye is added to make a paste.
- 4.4 The paste is then poured or pumped onto the floor and spread using trowels or rakes. The surface is finally smoothed using a trowel or helicopter power float as appropriate.
- 4.5 To maintain workability whilst trowelling liquid lye may be sprinkled onto the surface.
- 4.6 At 20 °C **RINOLDURALIT heavy duty** can be walked on or take light traffic after 3 days. Full mechanical properties are reached after about 28 days at the normal application thickness of 15 - 20 mm.

Specification clauses for RINOLDURALIT heavy duty

- 1) The bonding layer shall be **RINOL EP-B900** applied at a rate of 100 - 200 g/m² in such a manner as to ensure complete coverage of the substrate surface.
- 2) The wearing layer shall be **RINOLDURALIT heavy duty** applied such that the total thickness of the floor is 18 (alternate) mm.



No.1 in industrial flooring

RINOL Aktiengesellschaft
Benzstraße 2
D-71272 Renningen
Germany

Tel. + 49 / (0) 71 59 / 164-0
Fax + 49 / (0) 71 59 / 51 52
service@rinol.com

RINOL Asia Pacific (Holdings) Ltd.
Unit 1205, Bangna Tower A
Bangna - Trad Highway Km 6,5
Samutprakarn 10540
Thailand

Tel. + 662 7 51 96 04
Fax + 662 7 51 96 05
rinol.asia@rinol.com

www.rinol.com

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