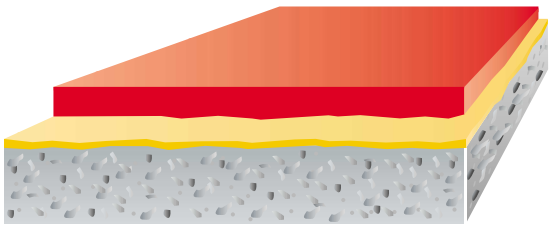
# RINOL*DURALIT superflat*

## The floor of choice for high rise storage




## System description

**A two layer magnesite based system for concrete and similar substrates. Specially formulated for superflat application. Applied thickness 15 - 20 mm.**

**Colour range**

Available in 7 colours.
See the RINOL*DURALIT* Colour Chart for details.

**Benefits**

- no grinding needed during or after application
- extremely smooth and flat – meets British, German and US standards
- excellent wear and impact resistance
- easy to maintain
- excellent oil and solvent resistance
- electrically conductive
- seamless

**Areas of use**

floors where extreme surface flatness is required:

- stores using aisle conveyance vehicles
- high rise warehouses
- archive storage
- film and television studios

## 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** | **<$10^6$ Ω** |
| DIN 51953 / DIN EN 1081 | |

# RINOL*DURALIT superflat*

## 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 RINOL*DURALIT superflat* with an applied thickness of 15 - 20 mm laid to an extreme degree of surface precision.

## 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/mm$^2$ 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 prefered 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 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/m$^2$ 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 RINOL*DURALIT superflat* 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 RINOL*DURALIT superflat* 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 RINOL*DURALIT superflat*

1) The bonding layer shall be **RINOL EP-B900** applied at a rate of 100 - 200 g/m$^2$ in such a manner as to ensure complete coverage of the substrate surface.
2) The wearing layer shall be RINOL*DURALIT superflat* applied such that the total thickness of the floor is 20 (alternate) mm and the surface flatness meets the specified requirements*.

*** These will normally be one of:**
**UK Concrete Society Technical Report 34 section 7**
**DIN 15185 Parts 1 or 2**
**DIN 18202 Table 3, line 4**
**F 301 IR-89 (USA)**

113E/REV.0/10.2000

**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