

# RonaFloor HB100, HB200, HB Vertical Grade

Medium and high build solvent free epoxy floor coating systems



## FEATURES

- high build coating for superior chemical resistance
- can incorporate fine aggregate to achieve slip resistance
- provides decoration; wide colour range
- easy to apply
- low maintenance
- Vertical Grade for application to covings and walls
- can be used in conjunction with RonaFloor Epoxy DPM

## Description

RonaFloor HB 100 and HB 200 are solvent free epoxy floor coatings for use on concrete, screeded and granolithic floors. They provide excellent abrasion and chemical resistance to floors subject to constant traffic. Cured dry film thickness for a 2 coat application is approximately 0.2mm for HB100 and 0.4mm for HB200.

## Product Selection

RonaFloor HB100 provides an economical wear resistant surface. RonaFloor HB200 should be used when greater wear is expected or a longer life is required. RonaFloor HB Vertical Grade is applied to vertical surfaces only.

## Physical Properties (standard grades)

Pot Life	30-45 minutes
Initial Cure Time	6-8 hours
Intercoat Period	6-24 hours
Foot traffic	12-24 hours
Fork lift	24-48 hours
Full chemical cure	7 days
Compressive Strength (HB 100) ASTM D695	55N/mm <sup>2</sup>
Flexural Strength (HB 100) ASTM D790	28N/mm <sup>2</sup>
Compressive Strength (HB 200) ASTM D695	60N/mm <sup>2</sup>
Elastic Modulus (HB 200) ASTM D695	3.9kN/mm
Abrasion Resistance (HB100)	0.04mm
Abrasion Resistance (HB200)	0.01mm

Abrasion resistance is classified as “Special Class” as defined in BS 8204.

## Physical Properties (rapid grades)

Pot Life	10-15 minutes
Initial Cure Time	4-6 hours
Intercoat Period	4-6 hours

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## Physical Properties (continued)

Foot traffic	4-6 hours
Fork lift	12-24 hours
Full chemical cure	7 days
Compressive Strength (HB 100) ASTM D695	55N/mm <sup>2</sup>
Flexural Strength (HB 100) ASTM D790	28N/mm <sup>2</sup>
Compressive Strength (HB 200) ASTM D695	60N/mm <sup>2</sup>
Elastic Modulus (HB 200) ASTM D695	3.9kN/mm <sup>2</sup>
Abrasion Resistance (HB100)	0.04mm
Abrasion Resistance (HB200)	0.01mm

Abrasion resistance is classified as “Special Class” as specified in BS 8204.

## Slip Resistance

### RonaFloor HB200 with a scatter of A/S Aggregate 0.1—0.3mm

SRV (dry)	70
SRV (wet)	64
Surface roughness	63μ
Potential for Slip (dry)	Extremely Low
Potential for Slip (wet)	Low

### RonaFloor HB200 with a scatter of A/S Aggregate 0.4—0.8mm

SRV (dry)	71
SRV (wet)	62
Surface roughness	95μ
Potential for Slip (dry)	Extremely Low
Potential for Slip (wet)	Low

## Chemical Resistance

10% Acetic Acid	Resistant
10% Lactic Acid	Spillage only
10% Nitric Acid	Spillage only
10% Teepol	Resistant
16% Bleach	Resistant
25% Ammonia	Resistant
30% Chromic Acid	Resistant
30% Hydrochloric Acid	Resistant
50% Phosphoric Acid	Spillage only
50% Sodium Hydroxide	Resistant
50% Sugar Solution	Resistant
50% Sulphuric Acid	Resistant
Acetone	Not recommended
Animal Fats	Resistant
Citric Acid	Resistant
Engine Oil	Resistant
Industrial Methylated Spirits	Spillage only
Methanol	Spillage only
Petrol	Resistant
Skydrol	Resistant
Tap Water	Resistant

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## Chemical Resistance (continued)

Toluene  
White Spirit  
Xylene

Spillage only  
Resistant  
Spillage only

## Coverage

RonaFloor HB100  
RonaFloor HB200  
RonaFloor HB Vertical Grade

25m<sup>2</sup> / pack / coat  
15m<sup>2</sup> / pack / coat  
18-20m<sup>2</sup> / pack / coat

## Rapid Grades

Where speed of cure and traffic is important the rapid curing versions of RonaFloor HB resins should be used.

RonaFloor HB100 Rapid, HB200 Rapid and HB Vertical Grade Rapid can be foot trafficked after only 4-6 hours (standard grade: 12-24 hours) and by fork truck traffic after 12-24 hours (24-48 hours).

The Rapid Grade has a shorter working time and pot life and material must therefore be mixed close to the area of application. The mixed resin must be immediately discharged onto the floor and spread before it begins to cure.

## Typical Applications

RonaFloor HB100 and HB200 coatings are used in areas requiring good wear and chemical resistance. They are suitable for use in chemical plant storage areas, warehousing, toilets, laboratories & food preparation areas. They adhere well to concrete, granolithic and polymer floors.

## Instructions for Use

### Substrate Preparation

To achieve maximum adhesion it is essential that RonaFloor HB coatings are applied to a structurally sound, clean and dry substrate. Prepare the surface by removing all loose material and making good any structural defects (for fast cure repairs refer to RonaFloor Repair 1 Hour data sheet). Substrates must be clean, dry and free from grease, oil, dirt, laitance and loose or friable materials. New concrete or screeds should be allowed to dry out for at least 28 days prior to coating. RH at the surface must be below 75% when measured with a Hygrometer, or have a moisture content less than 5%. Laitance must be removed by light mechanical abrasion such as vacuum shot blasting. The surface should then be vacuum cleaned, to remove loose shot and other loose materials.

### Application Conditions

The workability and ease of application of RonaFloor HB100 and 200 are adversely affected by low temperature; viscosity and curing time will increase. Therefore the material should ideally be stored, mixed and applied at 15°C to 20°C. At lower application temperatures the material should be stored at or warmed to 15°C to 20°C prior to use. Do not use when air and substrate temperature is below 10°C.

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### Instructions for Use (continued)

#### Substrate Priming

When applying to porous concrete it is advisable to seal the prepared surface with RonaFloor Epoxy Primer, coverage up to 5.5m<sup>2</sup> per kg depending on porosity.

#### Mixing

Add full contents of hardener container to full contents of resin container and mix with a slow speed drill and spiral mixing paddle until a homogeneous colour is achieved. Typical mixing time is 3-4 minutes. Transfer to a shallow paint tray immediately after mixing to dissipate heat to prolong pot life and extend working time. This is of even greater importance when using Rapid Grade

#### Application

Apply by short or medium nap mohair or lambswool (not foam) roller directly from a paint tray. Push the resin well in to the surface making sure the floor is fully wetted and then pull back lightly with the roller to the required thickness. Monitor applied thickness with a wet film thickness gauge.

#### Cleaning

Brushes and tools should be cleaned immediately with xylene based solvent.

#### Slip Resistance

Sprinkle A/S Aggregate onto the first coat whilst wet at the rate of approximately 1 to 2kg per m<sup>2</sup> and allow to cure. Brush or vacuum excess A/S Aggregate and apply second coat to achieve desired profile. Coverage rate for RonaFloor HB100 and 200 on to A/S Aggregate will be considerably reduced. The use of A/S Aggregate will reduce the ease with which the floor can be cleaned and the use of scrubber/ dryers should be considered.

### Colours

RonaFloor HB coatings are supplied in a range of colours, refer to colour chart available on request.

### Colour Variations

Packs should be used in strict batch rotation. Individual areas or rooms should be treated with material from a single batch to avoid the inevitable minor variations in shade resulting from batch manufacture, otherwise matched batches should be used to minimise these variations (an extract from FeRFA Guide To The Specification And Application Of Synthetic Resin Flooring).

### Osmotic Blistering

In a few cases severe blistering of thin synthetic resin floorings can occur between 3 months and two years after laying. These blisters commonly vary in size from a few mm in diameter up to 100 mm, with heights up to 15 mm. When drilled into or otherwise broken the blisters are found to contain an aqueous liquid under very high pressure. The mechanism of their formation is not fully understood but it is assumed because of their physical state that they are caused by a process of osmosis. Because the mechanism is not fully understood it is not

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### Osmotic Blistering (continued)

possible to be specific about the steps which should be taken to avoid osmotic blistering. However it is considered good practice to take steps in order to minimise the risk (an extract from FeRFA Guidance Note No 2: Osmosis in Resin Flooring ISBN 0 9538020 5 1).

### Packaging

RonaFloor HB100 and 200 and Vertical Grade are supplied in 5kg packs.

### Shelf Life and Storage

RonaFloor HB100 and HB200 should be stored in unopened containers in dry warehouse conditions between 10°C and 25°C and protected from direct sunlight and frost. Shelf life is approximately 12 months in these conditions.

To achieve optimum performance and appearance in shade and sheen, store and apply material at a constant ambient temperature, humidity and with the same air movement throughout the project. Avoid storage and application at air, substrate and material temperatures below 10°C.

### Health and Safety

First aid - Skin contact, wash immediately with soap and water. Eye contact - wash immediately with copious quantities of water for 10 minutes.

Seek immediate medical advice. Ingestion - wash mouth thoroughly with water. Drink water. Do not induce vomiting. Seek immediate medical advice. Spillage - extinguish any ignition sources. Wash small spills away with water, soak large spills with earth or sand; avoid contact; inform authorities if major spillage occurs. Notify Fire Brigade if spillage enters drains.

### Site Attendance

When on site Ronacrete representatives are able, if asked, to give a general indication of the correct method of installing a Ronacrete product. It is important to bear in mind that Ronacrete Ltd is a manufacturer and not an application contractor and it is therefore the responsibility of the contractor and his employer to ensure he is aware of and implements the correct practices and procedures to ensure the correct installation of the product and that liability for its correct installation lies with the contractor and not with Ronacrete Ltd.

The information detailed in this leaflet is liable to modification from time to time in the light of experience and of normal product application, and before using, customers are advised to check with Ronacrete Ltd, quoting the reference number, that they possess the latest issue. Any person or company using the product without first making further enquiries as to the suitability of the product for the intended use does so at his own risk, and Ronacrete Ltd can accept no responsibility for the performance of the product, or for any loss or damage arising out of such use.