

RonaFloor HB100, HB200, HB Vertical Grade and Rapid Grade

Medium and high build solvent free epoxy floor coating systems

FEATURES

- ✓ high performance high build epoxy floor coating
- ✓ for chemical resistance, decoration, mechanical wear resistance
- ✓ slip-reducing when used with A/S Aggregate
- ✓ colour range

SPECIFICATION CLAUSES

1. Epoxy Floor Coating - Highest Performance

The epoxy floor coating shall be RonaFloor HB100 by Ronacrete Ltd, telephone +44 (0) 1279 638700. All materials to be applied in accordance with manufacturers instructions.

2. Epoxy Floor Coating - Medium Performance

The epoxy floor coating shall be RonaFloor HB200 by Ronacrete Ltd, telephone +44 (0) 1279 638700. All materials to be applied in accordance with manufacturers instructions.

SUMMARY APPLICATION PROCEDURE

RonaFloor HB100

1. prepare surface
2. mix and apply two coats of RonaFloor HB100
3. protect
4. traffic

RonaFloor HB200

1. prepare surface
2. mix and apply two coats of RonaFloor HB200
3. protect

Description

RonaFloor HB 100 and HB 200 are solvent free high build epoxy floor coatings for use on concrete, screeded and granolithic floors. They provide excellent abrasion and chemical resistance to floors subject to constant traffic. Two coats of RonaFloor HB 100 or HB 200 also provide an easy to clean gloss finish. Cured dry film thickness is between 0.1mm and 0.4mm depending on grade, application rate and number of coats.

Grade Selection

RonaFloor HB 100 exhibits superior physical and chemical resistance over HB 200. RonaFloor HB 200 should be used where a thicker film build is required. RonaFloor HB Vertical Grade is applied to vertical surfaces only.

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 HB 100 and HB 200 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.

Surface 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 Monoset data sheet). Surfaces must be clean, dry and free from grease, oil, dirt, laitance etc. New concrete, mortar or plaster should be allowed to dry out for up to 28 days prior to coating. RH at the

surface must be below 75% when measured with a Hygrometer, or less than 6% when measured with a Protimeter. It is good practice on such surfaces, new or old, to remove laitance by light mechanical abrasion. The surface should then be vacuum cleaned, washed with clean water and allowed to dry. As with the application of any coating, surfaces should be tested to BS8204 Part 3 1993 to determine its suitability to receive RonaFloor coatings.

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.

Surface Sealing

When applying to weak or porous concrete it is advisable to seal the prepared surface with RonaFloor Epoxy Primer, applied at 6-7m² per kg.

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 Technique

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. Use coverage rates as a guide to thickness; monitor with wet film thickness gauge.

Cleaning

Brushes and tools should be cleaned immediately with Ronascreed Cleaning Solvent.

Slip Deterrent Surfaces

Sprinkle A/S Aggregate onto the first coat whilst wet at the rate of approximately 0.1 to 0.2kg per m² and allow to cure. Brush or vacuum excess A/S Aggregate and apply second coat to achieve desired profile. Coverage rate for RonaFloor HB 100 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.

Colours

RonaFloor HB coatings are supplied in a range of colours including unpigmented. Refer to colour chart available on request.

Maintenance Cleaning

Clean the cured surface with Ronadeck Cleaners as required. Use Ronadeck GP Cleaner for oil and grease removal and for general cleaning of the entire surface, and Ronadeck HD Cleaner for heavy localised oil and grease removal. Both are solvent free. See data sheet.

Storage and Packaging

RonaFloor HB 100 and HB 200 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. Both RonaFloor HB 100 and 200 are supplied in 5kg packs.

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 of major spillage occurs. Notify Fire Brigade if spillage enters drains.

RonaFloor HB100, HB200, HB Vertical Grade and Rapid Grade

Medium and high build solvent free epoxy floor coating systems

Note

This product is a carefully formulated blend of resin, hardener and other chemicals, it is designed to be applied as sold. Any on-site dilution, however small, can affect the physical characteristics of the final finish as well as the application properties and curing times.

Chemical Resistance

Both RonaFloor HB100 and HB200 are resistant to a wide range of chemicals including Skydrol.

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.

RonaFloor HB100 and 200

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 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).

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.

Coverage rates (based on smooth non-porous surface)	
RonaFloor HB 100	
1st coat @ 100 microns	25-28m ² /5kg
2nd coat @ 100 microns	25-28m ² /5kg
RonaFloor HB 200	
1st coat @ 200 microns	18-20m ² /5kg
2nd coat @ 150 microns	18-20m ² /5kg
RonaFloor HB Vertical Grade	
1st coat @ 100 - 150 microns	18-20m ² /5kg
2nd coat @ 100 - 150 microns	18-20m ² /5kg

Technical Data (all at 20°C)	Standard grades	Rapid Grade
Pot Life	30-45 minutes	10-15 minutes
Initial Cure Time	6-8 hours	4-6 hours
Intercoat Period	between 6 and 24	4-6 hours
Foot traffic	12-24 hours	4-6 hours
Fork lift	24-48 hours	12-24 hours
Full chemical cure	7 days	7 days
Compressive Strength (HB 100)	55N/mm ²	55N/mm ²
Flexural Strength (HB 100)	28N/mm ²	28N/mm ²
Compressive Strength (HB 200)	60N/mm ²	60N/mm ²
Elastic Modulus (HB 200) ASTM	3.9kN/mm ²	3.9kN/mm ²
Abrasion Resistance (HB100)	0.04mm classified as "Special Class" as defined in BS 8204	0.04mm classified as "Special Class" as defined in BS 8204
Abrasion Resistance (HB200)	0.01mm classified as "Special Class" as specified in BS 8204	0.01mm classified as "Special Class" as specified in BS 8204

Slip Resistance— 'Guidelines recommended by the UK Slip Resistance Group'		
SRV	Surface Roughness μ	Potential for slip
25 and below	Below 10	High
25 to 35	10 to 20	Moderate
35 to 65	20 to 30	Low
Above 65	Above 30	Extremely low

RonaFloor HB200 with a scatter of AS Aggregate 0.1-0.3mm	
SRV value	Dry 70
SRV value	Wet 64
Surface roughness	63μ

RonaFloor HB200 with a scatter of AS Aggregate 0.4-0.8mm	
SRV value	Dry 71
SRV value	Wet 62
Surface roughness	95μ

RonaFloor HB100, HB200, HB Vertical Grade and Rapid Grade

Medium and high build solvent free epoxy floor coating systems

Chemical Resistant Chart		
Chemical	RonaFloor HB100	RonaFloor HB200
Tap Water	R	R
Xylene	S	S
50% Sodium Hydroxide	R	R
16% Bleach	R	R
25% Ammonia	R	R
50% Sulphuric Acid	R	R
30% Hydrochloric Acid	R	R
30% Chromic Acid	R	R
10% Acetic Acid	R	R
Skydrol	R	R
10% Teepol	R	R
White Spirit	R	R
50% Sugar Solution	R	R
50% Phosphoric Acid	S	S
Animal Fats	R	R
10% Lactic Acid	S	S
10% Nitric Acid	S	S
Petrol	R	R
Acetone	NR	NR
Engine Oil	R	R
Methanol	S	S
Toluene	S	S
Citric Acid	R	R
Industrial Methylated Spirits	S	S
NR - Not recommended R - Resistant S - Resistant to spillage only		

RONL 132 Issue 10 29 March 2010

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.



Ronacrete Ltd, Ronac House, Flex Meadow, Merring Way, Harlow, Essex CM19 5TD, U.K.
 Tel: +44 (0)1279 638700 www.ronacrete.co.uk technical@ronacrete.co.uk

RonaFloor HB100, HB200, HB Vertical and Rapid Grades