



Rhinofloor® HBE

3K solvent-free epoxy for industrial floors

Description

- 3-pack solvent-free epoxy floor coating available in both 'Texture' and 'Flow' varieties
- 'Texture' – Provides a slight stipple effect to the aesthetic properties of the coating (Industrial applications)
- 'Flow' – Provides a smoother / glossier effect to the aesthetic properties of the coating (Retail / Commercial & Industrial applications)

Properties

- Excellent abrasion and wear resistance
- Seamless chemical-resistant surface
- Low odour during application - Low VOC
- Can be applied to suitably prepared horizontal & vertical surfaces (Refer 'Mixing' recommendations)
- Can be applied as a non-slip protective coating when used in conjunction with appropriate anti-slip aggregates

Typical Applications

- Commercial Carparks
- Factory, Workshop and Warehouse floors
- Aircraft maintenance hangars
- Food processing plants and Commercial kitchens
- Training rooms / Exhibition & Demonstration areas & Retail showrooms
- Washrooms and Amenities blocks
- Plantrooms / Store rooms & 'Back of house' areas
- **This is an industrial grade product and is not recommended for use in domestic situations**

How To Specify

- The flooring system shall be "RhinoFloor® HBE" as supplied by Wagon Paints Australia Pty. Ltd.
- Please refer 'Application' section for substrate priming prior to application of RhinoFloor® HBE
- The colour shall be
- The degree of non-slip to be similar to 'Approved' sample, or to ramp rating classification of "R"

General Data

- Weather resistance Good
Note – Product will chalk and discolour on exposure to both U.V. & artificial light sources, and some particular chemicals, however film integrity is not compromised. The application of UV-stable RhinoFloor® Polyurethane topcoats are highly recommended if the RhinoFloor® HBE system is specified for areas exposed to climatic conditions as per mentioned above. Severity of film discolouration is also subject to shade of colour selected, with white and light to mid grey tones most affected. Please refer RHINOFLOOR Technical Representative for further information.
- Solvent resistance Good
- Chemical resistance Excellent (mineral / vegetable oils; fats)
Very good (dilute acids / alkalis; salt solutions; brake fluid; engine coolant; skydrol)
- Abrasion resistance Excellent

Specifications (at 25°C and 50% relative humidity)

- Resin type..... Epoxy / Polyamine
- Mixing ratio..... 2 : 1 : 0.2 (A : B : C / by volume) (Refer "Mixing recommendations" on following page)
- Solids content..... 100% (by volume)
- VOC content..... < 45g/ltr (Mixed A & B & C)
- Typical film thickness (per coat)..... 200 - 250 microns (dry) (Unthinned)
200 - 250 microns (wet) (Unthinned)
- Theoretical coverage..... 4 - 5m² / L @ 200 - 250 microns dry film thickness (Unthinned)
5 - 6m² / L @ 165 - 200 microns dry film thickness (Thinned)
- Light pedestrian traffic..... 24 hours
- Light vehicular traffic..... 72 hours (Premature heavy / excessive traffic may cause coating damage / failure)
- Full cure..... 7 days
- Recoating..... within 16 - 24 hours to ensure good intercoat adhesion
after 24 hours, thorough mechanical abrasion required before recoating
- Pot life..... 25 - 40 minutes (Will be considerably reduced if RAPID hardener selected in mix)
- Gloss..... Gloss (Refer "General Data" above for restrictions of use)
- Colour..... RhinoFloor® colour range (Not available in clear – Refer RhinoFloor SF Premium)
(Alternate colours available subject to minimum order requirement)
- Shelf life..... maximum 12 months (in cool, dry conditions)

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Product Characteristics

- A "Fast" hardener, along with a "Super-fast" epoxy accelerator, is also available for use in the Rhinofloor® HBE floor coating system. Please note that these fast hardeners / epoxy accelerators are only to be used in the cooler months of the year. The use of these fast hardeners / epoxy accelerators may also cause some darkening / yellowing, and a reduction in gloss level, in some colours / shades.
- When curing under conditions of low temperatures and / or high humidity, exposure to water may cause the surface of the cured epoxy to discolour (Whiten). This water sensitivity may eventually disappear, dependant on ambient conditions. The use of the RHINOFLOOR HBE ACCELERATOR in conjunction with the RHINOFLOOR HBE FAST Pack B may attenuate this "Water-spotting" issue, but can only be used in suitable conditions, or as per recommendation of Wagon Paints Technical department. The use of the RHINOFLOOR HBE ACCELERATOR in conjunction with the RHINOFLOOR HBE FAST Pack B may still not fully attenuate "Water-spotting" issues when applied in very cold conditions (Eg. Winter). Therefore, we highly recommend that Rhinofloor Polyurethane topcoats, (such as Rhinothane T Rollgrade or Rhinofloor AG) be applied to the specified RHINOFLOOR HBE system, to eliminate the likelihood of the "Water-spotting" phenomena. Please refer RHINOFLOOR Technical Representative for further information.
- A "Super-slow" hardener is also available for use in the Rhinofloor® HBE floor coating system. This hardener should only be used in extreme conditions, when the ambient temperature is of a very high level.
- Please refer RHINOFLOOR Technical Representative for further information.

Surface Preparation

- All concrete surfaces to be coated must be in sound, stable condition, with moisture content not greater than 5.5%. New concrete substrates must be at least 28 days old prior to application of the Rhinofloor® HBE. The recommended preparatory method for the finishing of the concrete substrate, post-pouring, is either "Steel or Helicopter trowelled". Any traces of oil, grease or other contaminants must be completely removed by detergent wash. All excess water to be mopped up and concrete allowed to thoroughly dry. All surfaces to be coated must be 'Diamond-ground' to a profile similar to that of '80 grit' sandpaper (note: Some substrates may require 'Shot-blasting', particularly where concrete has been highly burnished). Care must be taken to ensure that all existing curing compounds/agents, loose or flaky material and laitance are completely removed. Diamond-grind all areas that are inaccessible to shot blast machine. All surfaces to be coated should be vacuum cleaned to remove dust and other loose particles immediately prior to application of the first coat of Rhinofloor® HBE.
- 'Acid-etching' is not a suitable preparation technique for concrete substrates specified to be applied with the Rhinofloor® HBE product. Please refer RHINOFLOOR Technical Representative for further information.
- 'Acid-etching' is not a suitable preparation technique for concrete substrates suspected of being pre-treated with 'Densifier' or 'Penetrating Sealer' type products. Preparation via mechanical abrasion of the substrate must be performed prior to application (ie. Scabbling / Shot-blasting / Diamond-grinding) to permit maximum adhesion characteristics of the system as specified. Please refer RHINOFLOOR Technical Representative for further information.

Mixing recommendation

- Mix only the quantity required for 20-30 minutes use
(Please note that the 'Pot life' of the mixed material will be considerably reduced if the RAPID hardener is selected)
- Mix Pack **A**, Pack **B** & Pack **C** in the ratio of: **2 : 1 : 0.2 (A : B : C / by volume)**
- Add Rhinofloor® HBE Colour pack (Pack C) to Rhinofloor® HBE Clear base (Pack A) and stir thoroughly for 2-3 minutes, avoiding excessive aeration of mix. Then add slowly the Rhinofloor® HBE Hardener (Pack B) and once again stir thoroughly for 2-3 minutes, avoiding excessive aeration of mix.
- We highly recommend mixing entire kits to avoid issues with mix ratios. If however smaller quantities are required for cutting-in, etc, we recommend the following – If mixing (Pack C – Colour pack) into (Pack A – Clear Base) prior to adding (Pack B – Hardener) the mix ratio MUST be (2.2 : 1) (v/v)
- Stir thoroughly with a broad paddle or low-speed mechanical mixer (350 RPM) to ensure even mixing.
- NOTE – Some colour shades will have higher opacity than others. If coverage of a particular colour shade is of concern, then an addition of extra 'Colour pack' to the system is permitted. Please note that the gloss, rheology and visual / aesthetic appearance of the Rhinofloor® HBE system may also be affected by this extra 'Colour pack' addition. Therefore, it is recommended a small test sample be applied before adding the extra 'Colour pack' to a full kit. If multiple batches of same colour packs are used on the same job, blending of these colour packs is highly recommended to achieve consistent shade. Please contact your local RHINOFLOOR Technical Representative prior to any extra 'Colour pack' addition to system. Final colour shade may also differ slightly when using same colour packs with the Flow and Texture Clear Pack A varieties.
- Product can be thinned if required using only Wagon Paints approved solvents – Refer "Thinning" section below.
- The addition of a small percentage of 'Thixotropic Additive' may still be required to reduce the potential for sagging when applied to vertical surfaces, especially when the product is to be applied in temperatures higher than usually specified or recommended. The gloss, rheology and visual / aesthetic appearance of the Rhinofloor® HBE system may also be affected by this addition. Therefore, it is recommended a small test sample be applied before adding the thixotropic additive to a full kit. Please contact your RHINOFLOOR Technical Representative for further information.
- If required as above, the thixotropic additive must be added to the premixed resin system (A+B+C), then stirred thoroughly and applied to the vertical surface. Please note that it is the full responsibility of the contractor / applicator to evaluate suitable addition quantities of the thixotropic additive to the Rhinofloor® HBE (Slow or Fast), if applied to vertical surfaces.

Thinning

- Thin only with recommended Wagon Paints solvents as specified in "Application" section below.
- Thin at 5%-10% to improve ease of coating application, particularly when applied in cooler atmospheric conditions.
- Always mix components A / B / C prior to adding any thinner to the mix – Refer "Mixing Recommendation" as above for further information.
- Please contact your RHINOFLOOR Technical Representative for further information.

Application

- Rhinofloor® HBE is a very versatile coating. It can be applied by squeegee or medium nap roller (Refer below)
- A key advantage of Rhinofloor® HBE is that it is relatively odour free during application.
- For 'Cutting-in' and other small areas, the Rhinofloor® HBE product may be applied by brush.
- Exceeding recommended application rate of between 4 - 6 m² / L is NOT recommended.
- Roller** nap size..... 5 – 15 mm (Microfibre - Applicator preference)
- No. of coats**..... Two recommended – A 3rd coat may be required on very porous substrates or areas where improved durability characteristics are required.
- Thinning / Cleaning solvent** T3 Epoxy Thinner or T7 Xylene or T13 Methylated Spirits

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Maintenance

- The service life of a floor will be considerably extended if good housekeeping practices are followed. Regular cleaning of "Rhinofloor® HBE" can be carried out using a mop, brush, or automatic rotary buffing / scrubbing machine, in unison with a mild alkaline detergent. Please contact your RHINOFLOOR Technical Representative for further information.

Safety precautions

- Refer to the relevant Safety Data Sheets (SDS) for Pack A, Pack B and Pack C
- Avoid contact with skin and eyes – when mixing, wear gloves and goggles

Pack A
Pack B
Pack C

Packaging Group N/A
Packaging Group III
Packaging Group N/A

UN No. N/A
UN No. 2735
UN No. N/A

Pack sizes

| SLOW | | | FAST | | |
|-----------|---------------|--------------|-----------|---------------|--------------|
| Pack size | Product | 16 litre kit | Pack size | Product | 16 litre kit |
| Pack A | Clear Base | 10.00 litres | Pack A | Clear Base | 10.00 litres |
| Pack B | Slow Hardener | 5.00 litres | Pack B | Fast Hardener | 5.00 litres |
| Pack C | Colour paste* | 1.00 litres | Pack C | Colour paste* | 1.00 litres |

*Colour availability may be subject to minimum order requirement

Test Certificates

- AS / NZS 4586-2013 Slip resistance classification of new pedestrian surface materials – Appendix 'A'
- AS / NZS 4586-2013 Slip resistance classification of new pedestrian surface materials – Appendix 'B'
- AS / NZS 4586-2013 Slip resistance classification of new pedestrian surface materials – Appendix 'D'
- AS / NZS 1530.3-1999 Early Fire Hazard Properties
- AS ISO 9239.1-2003 Critical Radiant Flux

Anti-slip Characteristics

- Refer "Test Certificates" as per above

Caution

Must not be applied over damp surfaces.

Do not apply when the air / surface temperature is below, or is likely to fall below 10°C, the air / surface temperature exceeds, or is likely to exceed 30°C, or relative humidity exceeds, or is likely to exceed 85%. Substrate temperature must be at least 3°C greater than the dewpoint at the time of application. Freshly applied coatings should be protected from chemicals, liquids, fluids, oils, solvents, thinners, damp, condensation and water for at least 7 days @ 25°C. Please refer Wagon Paints technical department for further information.

If specification / contract document states that a floor must conform to a particular Australian Standard for slip resistance, then an aggregate must be added into the Rhinofloor flooring system to impart the required non-slip "R-Ramp" rating. Please refer to Rhinofloor Technical Representative for further information.

Wagon Paints Australia, incorporating Rhinofloor Coatings, does not warrant the "Anti-slip" performance of the coating system(s), with or without aggregate, as this characteristic is out of our control. It is up to the applicator / contractor / purchaser to satisfy any "Anti-slip" regulations or standards required if applied to areas which may be hazardous to pedestrian or vehicular traffic.

Your local RHINOFLOOR Technical Representative is:

Cameron O'Donnell

Technical Representative
Heavy Duty Industrial & Flooring Products
Wagon Paints Australia Pty Ltd
(Incorporating RHINOFLOOR Coatings)
Member of TRANSOCEAN COATINGS Group

Mob 0411 557 234
Email codonnell@wagonpaints.com.au
Web www.wagonpaints.com.au



The "Rhinofloor / Transocean" floor-coating range has been designed / manufactured primarily to protect the concrete substrate. Please be aware that scratching, marring, colour-fading, gloss reduction, etc., will be evident, with the rate of film attack directly related to service conditions within the areas that these coatings have been applied. Wagon Paints, incorporating Rhinofloor Coatings, take no responsibility for film attack as mentioned, as these issues are a known fact inherent to all industrial epoxy and polyurethane floor coatings.

The information in this data sheet is provided to the best of our knowledge. However, we have no control over either the quality or condition of the substrate and other factors affecting the use and application of this product. Therefore, we cannot accept any liability whatsoever or howsoever arising from the performance of the product or for any loss or damage arising from the use of this product. We reserve the right to change the product, as well as the data sheet, without notice.

Authorised: J. Skangos - Technical Manager April 2023

These technical data and recommendations are based on tests and information believed to be accurate at the time of printing. They should not be construed as containing any warranty, either expressed or implied. Users should conduct their own tests to determine final suitability of this product.

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5 Stephenson Road, Bayswater North, Victoria 3153 Australia
Phone: 61 3 97291344 Fax: 61 3 97202179 Email: sales@wagonpaints.com.au