

ZeraFlex™ HB

Flexible Urethane-Modified Epoxy Coating

DESCRIPTION

ZeraFlex™ HB is a two-component high build, medium viscosity, 100% solids coating based on our unique epoxy urethane hybrid technology. It combines the flexibility, toughness, and impact resistance of polyurethane with the superior adhesion, hardness and handling properties of epoxy.

Due to its flexibility and outstanding adhesion properties ZeraFlex™ HB can be used on a wide range of substrates from concrete, to metal, wood, ceramic tiles, vinyl tiles, and fiber-reinforced plastics. It is available in oyster grey and stone beige. ZeraFlex™ HB is recommended for interior applications. However, it can still be used in exterior applications provided that it is protected with pigmented aliphatic urethane coating such as ZeraCote W-205.

WHERE TO USE

ZeraFlex™ HB can be used both as a primer, basecoat or topcoat provided that colour stability is not of major concern. It is highly recommended as a topcoat over waterproofing membrane ZeraDeck™ 98M for mechanical rooms.

ZeraFlex™ HB can also be used for wood, hard vinyl tiles or where the floor is subjected to high impact, movement, or thermal shock.

BENEFITS

- 100% solids, with low odour, zero VOC's
- High impact and thermal shock resistant
- Excellent adhesion to vinyl and rough ceramic tiles
- Outstanding toughness and adhesion properties

HANDLING PROPERTIES @ 23°C (74°F)

Mixing Ratio, by volume	2 parts A: 1 part B
Viscosity (Mixed)	3000 cps
Solids Content.....	100%
Mixed Weight (Density) ..	1.13 kg/litre (9.45 lb./US gal)
Pot Life (Working Time)	30 mins
Thin Film Set Time	16 hours
Foot Traffic	16 hours
Light Vehicular Traffic	24 hours
Full Cure & Maximum Resistance.....	7 days
Colour	Oyster Grey and Stone Beige

Cured Properties (7 days cure @23°C (74°F)/50RH)

Tensile Elongation	48% @ break (ASTM D638-86)
Tensile Strength	21 Mpa (3045 psi) (ASTM D638-86)
Hardness (Shore D).....	72 (ASTM D2240-86)
Impact Resistance	Pass 160 in/lb. (ASTM D2794)
Abrasion Resistance (ASTM D4060)	89 mg loss
Taber Abrasion, C-17 Wheel, 1000 cycles	

SURFACE PREPARATION

Existing Epoxy Floor:

Make sure that the floor is clean and free from oil or grease. The floor must be sanded with 80-100 grits to provide profile for adhesion. Ensure that the existing floor is sound and adhered well to the concrete. Epoxy coating would not adhere to alkyd or oil base coated floors.

Concrete (New):

New exterior concrete must be cured for a minimum of 28 days. The concrete slab should be shot blast or mechanically abraded to provide a clean tooth for the coating.

Concrete (Old):

Remove oil, grease, dirt and any unsound concrete using a combination of commercial de-greasers, alkaline wash and shot blasting. Cracks and surface defects should be repaired prior to the application of the coating. Substrate must be above 10°C (50°F) and must be free of all dirt, waxes, previously applied coatings, oil, grease and any foreign matter that may interfere with the bond of the topping to the substrate.

Wood:

Ensure that the moisture content in the wood is as low as possible. Do not use ZeraFlex™ HB over painted or varnished surfaces. They must be either sanded with an 80 grits sandpaper or stripped using commercial paint strippers.

Tiles:

The vinyl tiles must be sanded with 50 grits sandpaper, vacuumed and cleaned with solvent (xylene) if there are traces of grease or oil. Ceramic tiles should be either sanded with 50 grits sandpaper or the acid itching technique.

Steel:

Remove greases, oils and contaminants from the surfaces and sandblast to white metals.

MIXING

The mixing equipment used to mix the coating must be clean and free of any contaminants that may be present in the equipment from previously used products. Pour all of the liquid from Part B and Part A of **ZeraFlex™ HB** into the mixing equipment. A 'Jiffy Mixer Blade' or a mud mixer blade on a low speed drill is the preferred method of mixing. Mix the blended components for a minimum of 2 minutes (no induction period required).

APPLICATION

Standard Application Method:

As a coating, immediately after mixing component A and B together, pour a workable amount of the mixed coating on to the prepared surface and spread the material evenly with a squeegee. Then, using a lint free 5 mm nap roller (designed for epoxy and urethane), back-roll the applied material to provide an even coat. If a non-slip finish is required, add Zeraus' Non-Slip Additive to the mixed coating prior to the application, or lightly seed 31 mesh silica sand into the wet coating, and then back-roll to provide an even coat.

Broadcast Technique:

For a fully broadcast system, apply the product in the same manner described above but at 10-12 mils. Immediately broadcast 31 mesh silica sand aggregate lightly onto the mixed material until no "wet spots" are visible. When the first coat has cured sufficiently to sustain working traffic, make sure that any excess aggregate is removed by sweeping or a high-power vacuum. Apply the second coat tightly as "tie coat" to encapsulate the sand into it in order to provide a long-lasting flooring. It is recommended to apply a colored urethane topcoat for UV protection and aesthetic.

Note: Do not use a thinner with a broadcast system, otherwise the solvent will be entrapped and affect the strength and performance of the product.

LIMITATIONS

- Do not apply **ZeraFlex™ HB** if the substrate and ambient temperatures are below 10°C (50°F).
- Do not apply the topcoat less than 10 mils as an orange peel finish may appear or bubbling may occur due to insufficient material needed to self-level.
- Not recommended for areas subjected to steam cleaning or harsh chemicals.
- Not recommended for exterior applications without a UV stable pigmented urethane topcoat.
- Do not use over existing floor without testing

both the inter-coat adhesion as well as the adhesion of the existing floor to concrete.

- Never apply the topcoat over tacky or partially wet primer.
- May discolor under direct exposure to UV or strong interior light.
- Do not use on slab-on-grade without vapour barrier.

COVERAGE

Neat: 15 mil dry film thickness:

Prime Coat: (5 mils): 8 m²/litre (300 ft²/U.S. gallon)

Second Coat (10 mils): 4 m²/litre (160 ft²/U.S. gallon)

PACKAGING

11 litre (2.9 U.S. gal.) units

56.7 litre (15 U.S. gal.) units

CLEAN UP

Clean all equipment and installation tools immediately with xylene or low odour **ZeraSolv™** (non-air pollutant solvent).

SAFETY PRECAUTIONS

Consult the Material Safety Data Sheet (MSDS) for specific instructions.

SHELL LIFE

Two years from the date of manufacture if kept in the original unopened containers under normal room temperature.

WARRANTY

"The recommendations made and the information herein is the result of accurate laboratory and field tests under controlled conditions. We guarantee that the quality and properties of the materials supplied conform to our standards. Zeraus Products Inc. makes no warranties, expressed or implied, as uses and applications are beyond our control. Zeraus Products Inc. shall not be liable for any injury, loss, or damage (direct or consequential) arising from use or inability to use the products. Before using, the user is urged to pre-test the products in his/her own environment to determine the suitability of the products for their intended use, and the user assumes all risk and liability whatsoever in connection therewith.

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