

**DESCRIPTION** • *EpoCrete 100HB* is an ultra high build, all solids, two component, solvent free epoxy resin coating that cures to a clear glossy finish. *EpoCrete 100HB* was specifically formulated with specialty raw chemicals for use in decorative applications.

**USES** • *EpoCrete 100HB* is formulated for high adhesion strength and high performance for use as a binder with decorative aggregates such as glass beads, colored quartz, crushed marble, and pebbles. Decorative aggregates mixed with *EpoCrete 100HB* are casted on concrete floors to form highly durable decorative flooring finishes such as glass, stone and quartz carpets. *EpoCrete 100HB* may also be used as the base and embedding coat to receive decorative flakes such as mica and vinyl, forming decorative, multi-colored floors that are highly durable and easy to clean.

#### **ADVANTAGES** •

- ✓ High adhesion strength and ultra performance.
- ✓ All solid, zero solvent formulation.
- ✓ High clarity for decorative applications.
- ✓ Forms easy to apply, economical decorative flooring finishes.
- ✓ High gloss finish.
- ✓ High chemical resistance.

**LIMITATIONS** • Never apply to new concrete surfaces before they have been allowed to cure for a minimum of 28 days. *EpoCrete 100HB* is only a fine coating; it should not be used to fill cracks, gaps or holes in the surface. As with all types of epoxy, UV radiation will cause discoloration, it is therefore recommended to seal the surface with a UV resistant clear polyurethane coating such as *ElastoCrete 4000* or *ElastoCrete 6500* when UV radiation exposure is present.

#### **PHYSICAL PROPERTIES** •

Specific Gravity	0.95 ± 0.05
Solids Volume	100%
Dry Film Thickness (DFT)	150 microns
Pot Life	60 min at 25°C 40 min. at 35°C
Full Cure	7 days at 20°C 5 days at 35°C
Shore D Hardness ASTM D 2240 - 91	80
Flash Point	Non-flammable

**CHEMICAL RESISTANCE** • Fully cured *EpoCrete 100HB* samples have been tested for chemical resistance to ASTM D 1308 and found to have no discoloration, change in gloss, blistering, softening, or swelling to the following materials:

- Ethyl Alcohol (50% vol.)
- Vinegar (3% Acetic Acid)
- Alkali Solution (pH 11.5)
- Acid Solution (pH 2.5)
- Soap Solution
- Detergent Solution
- Volatile Fluid
- Petrol
- Fruit
- Vegetable Oil
- Tea
- Coffee
- Grease
- Distilled Water (cold and hot)

**COVERAGE** • Coverage will vary according to the size and shape of the aggregates used, gradation of the aggregates, surface roughness, and job conditions. For application as a binder, *EpoCrete 100HB* should only wet the surface of the aggregates to provide the required adhesion between the aggregates. For ready-to-use aggregate and binder kits provided by CCC, *EpoCrete 100HB* and the aggregates will be provided in the appropriate proportions. For cases where *EpoCrete 100HB* is purchased separately from CCC, trials should be made with the particular aggregates to be used as this ratio could vary significantly depending on the size, shape, and gradation of the aggregates, but typically the ratio of *EpoCrete 100HB* to the aggregates should not be more than 10% by weight. For CCC pre-packaged kits of 1-6 mm rounded glass beads and *EpoCrete 100HB*, the coverage rate is approximately 1.7 sq m/L when the glass carpet is applied in 10 mm thickness.

For application where *EpoCrete 100HB* is used as a base coat for receiving decorative flakes, the coverage rate is 6 sq m/liter. For subsequent embedding coats over the flakes, expect the coverage to drop by at least half due to the increase in surface area.

**SURFACE PREPARATION** • All surfaces should be clean, dry and free from dust and other contaminants. Wet substrates should be sponge dried to remove all free surface water then dried thoroughly. Treat oil or grease contamination with degreaser followed by water or steam cleaning. Contamination may be removed from surface by sandblasting, scarifying, or metallic abrasive

blasting. The substrate must be fine textured since *EpoCrete 100HB* is applied in a thin coat. Smooth surfaces should be roughened by light grinding or other mechanical means.

New concrete floors: should be at least 28 days old and have a moisture content of less than 5%. The relative humidity at the surface should not be more than 25% as per BS8201:1981. Excessive laitance should be removed by mechanical methods. Dust and other debris should be removed by vacuum cleaning.

Old concrete floors: damaged areas or surface irregularities should be repaired using *MortCrete 3000*.

Epoxy Screeds: high spots or trowel marks should be rubbed down. Remove dust and debris by vacuum cleaning.

**MIXING** • The entire contents of the hardener container should be poured into the base container and the two materials mixed thoroughly for at least 3 minutes. Use a heavy duty slow speed power drill with a jiffy mixing blade. Mix the two components in the quantities supplied taking care to ensure hardener container is scraped clean. Do not add solvent thinners at any time. Do not mix for more than four minutes, then pour immediately into the container holding the decorative aggregates. For best results, use a drum mixer for large quantities, but do not mix more than can be applied within 15-20 minutes in order to insure proper application.

**APPLICATION** • *EpoCrete 100HB* is used either as a binder mixed in with decorative aggregates or as a base and embedding coat for receiving decorative flakes.

As a binder: *EpoCrete 100HB* should not be mixed for more than four minutes. Pour into the container holding the aggregates. For small quantities, a slow speed hand mixer may be used; for large quantities it is recommended to use a drum mixer in order to insure that *EpoCrete 100HB* thoroughly wets the surface of the aggregates. For best results, it is not recommended to mix more than what can be applied in 15-20 minutes. Mix the aggregates and the resin for a maximum of 5 minutes, then pour the aggregate / resin mix on a pre-primed concrete surface while the primer coat is still tacky; it is recommended to prime the surface with *EpoPrime EP* or equivalent. Use screed guides on the floor to spread and screed the mix to the desired thickness, then use a trowel to compact the material properly. Use of a light weight power trowel might be possible in some cases to insure thorough compaction.

As a base and embedding coat: Prime the surface

of the concrete with a coat of *EpoPrime EP* or equivalent. While the primer coat is still tacky, apply the base coat of *EpoCrete 100HB* with a short or medium hair roller while wearing spiked shoes. Immediately start sprinkling the decorative flake aggregates such as mica or vinyl by broadcasting on the surface of the wet coating. Work small areas at a time. The flakes may be applied in any quantity required to achieve the desired visual effect; typically 400-500 grams of mica flakes per sq meter will give full coverage. Allow to dry for 24 hours, then remove excess and loose flakes by an air blower; do not use a brush or broom. Coat the surface with as many subsequent coats of *EpoCrete 100HB* as desired; allow at least 8 hours of drying time between coat, longer at lower temperatures. For a smooth finished surface, apply 2-3 coats of *EpoCrete 100HB* then sand off the high spots once the surface is completely dry. Recoat with another coat of *EpoCrete 100HB* or the desired top coat.

**SEALING/TOP COAT** • For protection against yellowing due to UV radiation exposure, it is highly recommended to apply a top sealing coat of a UV resistant clear polyurethane coat such as *ElastoCrete 6500* or *ElastoCrete 4000*.

**CLEANING** • Tools and equipment may be cleaned with an organic solvent.

**STORAGE & SHELF LIFE** • Product should be stored at 25°C in dry conditions away from direct sun light. Shelf life is approximately 12 months from date of purchase in original unopened container at specified storage temperature.

**SAFETY PRECAUTIONS** • Non-Flammable. The application of material should be under good ventilation. Avoid inhalation of the vapors. Use goggles and vinyl gloves. In case of contact with eyes, rinse immediately with plenty of clean water, do not use solvent and seek medical attention immediately.

The product complies with environmental and occupational health & safety standards ISO 14001 and OHSAS 18001.

**PACKAGING** • 5 liter packs (includes hardener and base components) when sold separately; pre-packaged in appropriate size when sold with an aggregate kit.

### Creative Concrete Concepts

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