

Solvent-Free Epoxy Floor Coating

DESCRIPTION • *EpoCrete 250* is a high-performance, two-component, pigmented, solvent-free epoxy resin floor coating. The cured film forms a hard coating with excellent adhesion to concrete, granolithic screeds, and certain metal surfaces. *EpoCrete 250* cures to a glossy, impervious finish which can be easily cleaned. *EpoCrete 250* is available in a wide range of colors.

USES • *EpoCrete 250* is suitable for use in parking garages, production assembly areas, workshops, dairies, soft drink production and bottling plants, kitchens, showrooms, wet working areas and other areas with chemical spillage and high abrasion.

EpoCrete 250 provides a hard-wearing, easily cleanable and attractive floor coating in areas where high resistance to chemical attack is required.

EpoCrete 250 is used as a final coat and sealer for concrete floors; non-skid coat when sprinkled over with quartz granules; and as a finish coat for epoxy floor screeds to provide an easy to clean surface where high impact resistance is required.

ADVANTAGES •

- ✓ High impact resistance.
- ✓ Low maintenance costs.
- ✓ High abrasion resistance.
- ✓ Provides a hygienic, impervious finish.
- ✓ Available in a wide range of colors.
- ✓ Solvent-free.
- ✓ High gloss finish.
- ✓ Applicable up to a 1.5 mm thickness.
- ✓ High chemical resistance.
- ✓ Easy to apply.

LIMITATIONS • Never apply to new concrete surfaces before they have been allowed to cure for a minimum of 28 days. *EpoCrete 250* is only a fine coating; it should not be used to fill cracks, gaps or holes in the surface. UV radiation will cause discoloration over the long term but is not detrimental to performance.

PHYSICAL PROPERTIES •

Mixed Density	1.45 ± 0.05
Solids Volume	100%
VOC	< 25 g/L
Pot Life	35 minutes at 25°C
Tack Free Time	8-10 hours at 25°C 6-8 hours at 35°C
Initial Hardness	24 hours at 20°C 16 hours at 35°C

Minimum Service Temp.	10°C
Maximum Service Temp.	80°C
Final Cure	7 days
Shore D Hardness ASTM D 2240	80 - 90
Pull Off Strength (ASTM D 4541), on Concrete Value Failure Mode	3.2 N/mm ² Within Concrete
Tensile Strength ASTM D 412	21.2 N/mm ²
Flexural Strength ASTM D 638	40 N/mm ²
Water Penetration BS EN 12390	Nil
Compressive Strength ASTM C579	79.5 N/mm ²
Abrasion Resistance ASTM D 4060 - 95, CS - 17 wheels at 0.5 kg load	100 cycles: 4.0 mg 500 cycles: 15 mg 1000 cycles: 30 mg

CHEMICAL RESISTANCE • Fully cured *EpoCrete 250* 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 • Application rate will vary according to surface conditions, application technique and job conditions. Maximum recommended application rate is approximately 4 m²/liter at 250 microns (DFT) per coat for a smooth finish, however, higher thicknesses are possible by consumption of more materials during the application.

SURFACE PREPARATION • All concrete surfaces must be fully cured for a minimum of 28 days,

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sufficiently rigid, and clean of any surface contamination such as oil, dirt, grease, coatings, curing compounds, and laitance that may prevent proper adhesion. Dense, smooth surfaces, and those retaining excessive amount of form release agent can cause delamination from the base. Any painted or coated surfaces should be sandblasted and/or grinded to remove existing coatings. Use of detergents or soap is not recommended as they may leave a film that can cause bonding failure. The substrate should also be visibly dry. Concrete slabs, on or below grade, must have an efficient moisture/vapor barrier placed by the general contractor directly under the slab.

The concrete substrate should preferably be steel trowel finished. The surface must be prepared mechanically by grinding or shot blasting to achieve a rough profile and remove laitance, curing agents, and contaminants.

Use mechanical grinding along with patching to achieve the required surface level. Use only epoxy-based products for patching such as *MortCrete 3000 Multi-purpose Epoxy Mortar* and/or *EpoCrete 5000 Epoxy Screed*; cement-based patching products may require proper curing time before the coating can be applied.

Damaged areas, surface irregularities, and cracks must be repaired with *MortCrete 3000 Multi-Purpose Epoxy Mortar* prior to application. Remove all unsound concrete. Patches shall be flush with the surrounding surface and shall match the texture of existing surfaces.

Surrounding areas should be covered and protected from material spills and equipment contact. Rope off work area, remove surrounding vehicles, and close off to traffic.

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.

APPLICATION • Priming, though not mandatory, is recommended for porous concrete surfaces by using *EpoPrime100*, *EpoPrime EP*, *EpoPrime EP1*, or equivalent – refer to the relevant CCC technical data sheet. Apply the primer to the dry substrate at the recommended rate using a medium or short hair roller. Allow the primer to become completely tack free before coating over with *EpoCrete 250*. *EpoCrete 250* should be applied to prepared

surfaces using a medium or short hair roller while wearing spiked shoes. Ensure that the area is completely coated. The second coat may be applied as soon as the first coat has initially dried (typically 18 to 24 hours).

A non-skid final surface may be obtained by broadcasting *A-Z Quartz* or equivalent graded silica sand to the first *EpoCrete 250* coat while still wet at a rate of 1.5 m²/kg or to rejection. Alternatively, quartz sand may be broadcast on the primer coat when using a higher build primer coating such as *EpoPrime 100*. Use spiked shoes during application. Insure that all loose and unbonded quartz sand is completely brushed off the next day before applying the following coat.

A-Z Quartz is available in three grades for antiskid surface finishing:

A-Z Quartz # 01 in sizes 0.3 - 0.6 mm

A-Z Quartz # 02 in sizes 0.4 - 0.9 mm

A-Z Quartz # 03 in sizes 0.8 - 1.2 mm

CLEANING • Tools and equipment must 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 • 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 • 18 L pack (includes hardener and base components).

Creative Concrete Concepts

PO Box 925794, Amman 1110, Jordan; Tel +962-6-487-4078, Fax +962-6-488-9133 • PO Box 91234, City of Industry, CA 91715-1234, USA; Tel +1-909-266-0709, Fax +1-909-266-0711 • PO Box 31017, Sharjah, UAE; Tel +971-6-532-1119, Fax +971-6-532-8833