MonniTop E250

High performance epoxy floor coating

Product Description

MonniTop E250 is a two components solvent free epoxy system consisting of a colored base resin, hardener. It is suitable for chemical protection coverings of industrial pavements, reinforced concrete and metallic structures.

Uses

MonniTop E250 is used as a resistant coating against chemicals and as an abrasion protective covering for floors.

MonniTop E250 is an ideal system for heavy duty floor coating such as:

- Car parks
- Industrial floors
- Laboratories, loading docks ramps
- Showers
- Aircraft hangers

Advantages

- Solvent free and odorless
- Durable and low maintenance cost
- Excellent resistance to a wide range of chemicals
- High mechanical strength, with excellent abrasion resistance
- Excellent adhesion to the substrate. Bonding strength is greater than cohesive strength of concrete
- Less labor cost to achieve the required thickness (250 microns per coat)

Usage Instructions

Surface Preparation

Concrete Substrates

The surface of the concrete to be prepared shall be sound, clean and uncontaminated.

This preparation shall be such as to leave a sound exposed concrete surface free from dust, loose particles and any deleterious matter. If the concrete surface is defective or has laitance, it must be cut back to a sound base. Excess laitance deposits are best removed by light mechanical scrabbling, grinding or grit/captive blasting followed by vacuum cleaning to remove dust debris.

Any blowholes, chipping or similar surface imperfections shall be repaired using MonniFinish EC, a solvent free epoxy resin repair mortar. Allow the repair material to harden.

Expansion joints shall be repaired using MonniMort EHS, a High strength solvent free epoxy mortar.

New concrete or cementitious surfaces should be allowed to cure and have moisture content not exceeding 5%. Old or existing floor should be refurbished mechanically to ensure clear sound substrate.

Metal Substrates

All metal substrates should be blast cleaned to achieve a minimum of Sa2 ½ standard of roughness, an angular amplitude of at least 75 microns for pedestrian traffic and 100 microns for vehicular traffic. The coating system must be applied over the blasted steel surface immediately. If the standard of the surface falls below Sa2 ½ then the steel must be reblasted.

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Priming
MonniTop E250, primeless, apply without using a primer coat.

In case of metal and porous substrates, the surface shall be treated with one coat of epoxy primer before the oxidation process occurs.

Mixing
MonniTop E250 is supplied in two pre-weighed packs (Component A – Base and Component B – Hardener) which are ready for immediate in-situ use. Stir in both components before use.

Transfer the entire contents of component B (Hardener) into the component A (Base) can and mix with low speed drill and paddle (200 – 300 rpm) for 2-3 minutes till obtaining a mix with uniform consistency. Scrape the sides and bottom of the can during mixing to ensure homogeneity.

Application
Apply two coats of MonniTop E250 with a roller, squeegee or airless spray to the primed tack free surface at a consumption rate of 5-6m2/Liter.

Each coat will be a minimum of 200-250 microns thick. The second coat shall be applied after the first coat is completely dry.

The total dry film thickness of the coating shall be a minimum of 500 microns.

For anti-slip flooring, silica sand (with suitable size) can be broadcasted on first coat in order to achieve leatherette like finish.

For heavy traffic areas such as drive lanes, ramps, turn areas, or other areas subjected to high abrasive traffic, apply a third coat MonniTop E250.

Cleaning
Tools and equipment should be cleaned with Monelli Solvent 10 immediately after use. Hardened material should be removed mechanically.

Spillages should be absorbed with sand or sawdust and disposed of in accordance with local regulations.

Recommendations

- MonniTop E250 should not be applied onto surfaces likely to suffer from rising dampness or relative humidity > 70%
- MonniTop E250 should not be applied at temperature below +5°C
- MonniTop E250 should not be applied at asphalt floors or PVC tiles
- MonniTop E250 should be applied internally. If used exteriors it is strongly recommended to cover with one or two coats of MonniTop E250.

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Technical Data

Category	Typical Values
Appearance	Liquid Coating
Color	Refer Monneli Color Chart
Viscosity	1500 MPa's at 25°C
Density	1.42 kg /L at 25°C
VOC	20.0 g/L
Solid Content	100 %
Pot-life time	60 minutes at 25°C
Bond strength (ASTM D 4541)	2.0 N/mm^2 Concrete Failure
Compressive strength (ASTM C 579)	90 N / mm^2
Flexural strength (ASTM C 580)	36 N / mm^2
Tensile strength (ASTM C 307)	20 N / mm^2
Abrasion Resistance (ASTM D 4060)	68 mg, 1000 cycles
Critical Radiant Flux) (ASTME 648-15)	1.10 w/cm^2
Water Absorption (BS EN 12390)	0.05%
Open to vehicular traffic	48 hours at 25°C
Service Temperature	-5°C to +80°C
Open to foot traffic	24 hours at 25°C

All values are subject to 5-10 % tolerance

Consumption

5-6 m^2 / liter according to the porosity of support.

Packaging

MonniTop E250 is supplied 4- and 15-Liter Kits
Coverage

Chemical resistance

Fully cured MonniTop E250 samples have been tested in a wide range of aggressive chemicals commonly found in industrial environments. Tests were performed in accordance to ASTM D543 standards over 7 days at +25°C.

Material	Resistance
Hydrochloric Acid (20%)	Resistant
Sulphuric Acid (20%)	Resistant
Sodium Hydroxide (50%)	Resistant
Ammonia (10%)	Resistant
Petrol	Resistant
Oil	Resistant
Kerosene	Resistant
Butanol	Resistant
Skydrol	Resistant
Industrial Methylated spirits	Resistant
Saturated Sugar Solution	Resistant
Urea (saturated)	Resistant
Bleach (5%)	Resistant

Shelf Life & Storage

Keep in tightly closed containers and in sheltered and dry place with a temperature between +5°C and +35°C. Shelf life is 12 months from date of production if stored properly.

Health & Safety

During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary. In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly. If ingested, obtain medical attention immediately. Do not induce vomiting.

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