

MONNELI EPOFLOOR E240

Solvent Free, High Build Epoxy Flooring System

Product Description

A two component solvent free epoxy system designed for the protection of concrete. Once cured, the product has excellent abrasion and good chemical resistance. EPOFLOOR E240 provides an attractive hard wearing and easily cleanable floor finish.

Uses

EPOFLOOR E240 is used for a variety of industrial applications such as:

- Production assembly areas, workshops, dairies, bottling plants, breweries, pharma plants, kitchens, showrooms, etc.
- Anti-slip floors, ramps & high traffic
- Wet working areas
- Floor coating for car-parking

Advantages

- High abrasion and impact resistance
- Ease of application
- High chemical resistance
- Low maintenance costs
- Hygienic, impervious and easily cleanable
- Slip-resistant finish can be obtained
- Available in wide variety of colors
- High bond, stronger than concrete cohesive strength
- Economic installation

Instructions for Use

Surface Treatment

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 scrubbing, grinding or grit/captive blasting followed by vacuum cleaning to remove dust debris.

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

Expansion joints shall be repaired using EPOMORT HS, 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.

Priming

Priming is not normally required provided the substrate is sound, clean, free from loose material, grease, laitance, dirt, curing compound etc.

In case of highly porous concrete, it must be treated with PRIMER POXY FF, a solvent-free high performance epoxy primer.

In that case the primer should be applied by brush or roller on to the cleaned surface area (particularly hidden surfaces) at a rate of 5-6 m²/Liter.

The primer should be left to achieve a tack-free condition before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

Mixing

EPOFLOOR E240 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 content 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.

Dilution up to 8% using Solvente 10 to aid application is permitted.

Application

Apply two coats of EPOFLOOR E240 with a roller, squeegee or airless spray to the primed tack free surface at a consumption rate of 4-5m²/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 400-500 microns.

For anti-slip flooring, silica sand (with suitable size) can be broadcasted directly after the 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 EPOFLOOR E 240.

Expansion Joints

Expansion joints in the existing substrate must be retained and continued through the EPOFLOOR E240 topping. COLMEF have a range of joint sealants specifically designed for flooring.

Cleaning

Tools and equipment should be cleaned with SOLVENTE 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

- EPOFLOOR E240 should not be applied onto surfaces likely to suffer from rising dampness or relative humidity >70%.
- EPOFLOOR E240 should not be applied at temperature below +5°C.
- EPOFLOOR E240 should not be applied at asphalt floors or PVC tiles.
- EPOFLOOR E240 should be applied internally. If used exteriors it is strongly recommended to cover with one or two coats of EPOFLOOR UV2.

Chemical Resistance

Fully cured EPOFLOOR E240 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
Lactic acid (10%)	Excellent
Citric acid (10%)	Excellent
Hydrochloric acid (30%)	Excellent
Sodium hydroxide (50%)	Excellent
Acetic acid (10%)	Excellent
Butanol	Excellent
Crude oil	Excellent
Nitric acid (25%)	Discoloration
Sulphuric acid (20%)	Excellent
Phosphoric acid (50%)	Discoloration
Mineral oil (10%)	Excellent
Ammonia (10%)	Excellent
Sea water	Excellent
Jet fuel	Excellent
Skydrol	Discoloration

All values are subject to 5-10 % tolerance

Technical Data

Properties	Results
Appearance	Liquid coating
Color	Refer Colmef Color Chart
Solid content	100 %
Pot-life time at 15°C	50 minutes
Pot-life time at 40°C	15 minutes
Thin film dry time at 15°C	12 hours
Thin film dry time at 40°C	3 hours
Mixed density at 20°C	1.6 kg /L
Max recoat/topcoat time at 15°C	48 hours
Max recoat/topcoat time at 40°C	24 hours
Bond strength (ASTM D 4541)	>2.0 N / mm ² Concrete Failure
Compressive strength (ASTM C 579)	75 N / mm ²
Flexural strength (ASTM C 580)	48 N / mm ²
Tensile strength (ASTM C 307)	36 N / mm ²
Abrasion resistance (ASTM D 4060)	20 mg, 1000 cycles
Water absorption (ASTM D413)	0.004
Porosity with no sealer NACE Sand TM-01-74	0
Shore D hardness	80
Impact resistance ASTM D2794	10 Joules

All values are subject to 5-10 % tolerance

Standard Compliance

BS EN 476:2009 as Class 1 in Flame Spread

Consumption

4-5 m² / liter according to the porosity of support

Packaging

EPOFLOOR E240 is supplied 4 and 15 Liter kits

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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