



IF 3 E

Solvent Free Epoxy Primer

Pack Size
15Kgs

TDS
Technical Data Sheet



Description

IF 3E is a two-component epoxy primer for use with CLI polyurethane screeds and self-smoothing epoxy floor coatings. Blind with Fine Aggregate and use as a primer prior to applying thick applications of the CLI Industrial Floor System, or other appropriate CLI cement-based products. Where surfaces are very porous, more than one coat of IF 3E may be required to achieve the desired bonding efficiency. For applications on new concrete or where the relative humidity (RH) of the substrate is in excess of 75%, CLI AT- 107 Surface Damp Proof Membrane should be used. If the substrate is particularly smooth, the surface of the IF 3E should be seeded with Fine Aggregate immediately after application to give a mechanical key to facilitate installation of resin screeds and toppings.

Features

- Two component Solvent Free Epoxy Primer
- Easy to apply
- For internal or external use
- Seals substrate and acts as an adhesive bridge
- For use with CLI polyurethane, epoxy and cement-based systems

Surface Preparation

The concrete or screed substrate must be hard, sound and free of dust and other barrier materials such as paint, lime coatings, plaster, curing agents, laitance, adhesive residues, etc., that will inhibit adhesion to the substrate.

Use Degreaser to remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. Contaminated concrete surfaces should be mechanically prepared, either by scabbling, grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying IF 3 E. Overwatered or otherwise weak concrete surfaces must also be suitably prepared down to sound, solid concrete by mechanical methods. Dust and other debris should be removed using vacuum equipment.

Note: Any joints or cracks in the concrete base where differential movement is anticipated e.g. movement joints, should be brought through to the finished surface and suitably sealed. New concrete slabs must be allowed to cure for at least 14 days.

Mixing

The individual contents of the IF 3E should be thoroughly stirred before being mixed together. The entire contents Part B should be poured into Part A and the two materials mixed thoroughly for at least 3 minutes using a heavy-duty slow-speed drill and spiral paddle. Some of the mixed components should be reintroduced back into the hardener container in order to activate any residue and then poured back into the larger mixing vessel and re-mixed for 30 seconds. Mixing in this way will ensure product consistency and that any resin that remains in the containers after application will cure to provide for easier waste disposal.

Application

Once mixed, the material should be spread over the floor as self-heating in the container will reduce working time. Apply using a brush

or short/medium pile roller. One or more coats may be needed to ensure that a uniform coating is achieved and to compensate for differences in surface porosity. All movement joints in the sub-floor must be carried through the topping and properly sealed. Construction joints and cracks not subject to movement may be overlaid but should the floor move in any way, these defects will reflect through the system. Isolation joints will need to be allowed for in areas where high thermal movement is anticipated, e.g. around ovens and freezers.

Physical Properties

Working time	50 mins
Walkability:	24 hours
Curing time	: 7 days
Bond strength	> 2.5 N/mm ²
Mixing ratio:	As specified on the container

Coverage Estimates

Approximately 20 - 25 m² per coat Note: These figures are theoretical, due to the wastages and the variety and nature of substrates practical coverage figures may be reduced.

Storage and Shelf Life

Store in dry conditions. IF 3E has a storage life of not less than 12 months in the original unopened containers.

Surface Preparation

Thorough and appropriate surface preparation is essential for the long-term performance of the floor and is the foundation of any good flooring installation. The choice of technique to be used will be determined by the site conditions and sometimes will necessitate a combination of methods to ensure that a satisfactory substrate is achieved.

Suitable methods include contained shot blasting and surface planing or scabbling. Very oily or grease-contaminated floors need particular care and treatment such as hot compressed air which should be used in combination with degreasing and mechanical preparation. Diamond grinders, along with scabbling machines, can also be used to remove high spots from the surface; some scabbling machines can remove up to 6mm of concrete in one pass and can therefore help to control levels. Whichever technique is used, the edges of the floor and any other areas where the large surface preparation machines cannot reach must also be prepared, typically by edge grinding.

Note: Percussive scabbling is not normally recommended. A visual examination of the concrete surface is essential but will only give an overview of surface condition and damage sustained. The physical condition of the concrete also needs to be assessed for strength, including pull-off strength, moisture content and presence of an effective damp proof membrane.

Surface strength should be tested after preparation, in accordance with BS 8204-6:2001, which recommends a rebound hammer strength of 25 N/mm² or a minimum surface tensile strength of 1.5 N/mm².

The long-term performance of any system bonded to a substrate depends on the adhesion achieved, which itself depends upon the substrate having sufficient cohesive strength and being thoroughly prepared. New direct finished base slabs or fine concrete screeds should be designed in accordance with BS 8204-1: 1999, laid to falls as necessary and not contain a water repellent admixture.

Minor repairs to cracks or holes should be carried out using an appropriate product. Any joints or cracks subject to movement must be brought through to the final floor finish and a suitable movement joint profile and nosing joint detail used to avoid reflective cracking. Any resin-based repairs which will be covered by CLI Industrial Products must be hard, sound and blinded with an appropriate aggregate. Once a new industrial floor has been installed it should be protected from other trades and contamination until the recommended curing period has elapsed.

Maintenance of Resin Floorings

The floor finish provides an aesthetic finish, a wearing surface, and protects the substrate concrete from chemicals. To ensure that the appearance of the flooring is kept at its best, performs as it should, and stays in the required hygienic condition, it is important to follow good housekeeping and identify an appropriate regular cleaning regime. Generally, a mechanical scrubber fitted with appropriate brushes and clean water rinsing, incorporating wet vacuum, will be most effective (using up to a maximum water temperature of 50°C for epoxy systems). The use of the traditional mop and bucket technique is not appropriate. Heavily trafficked areas need to be cleaned more frequently. Only use cleaning liquids, such as neutral or low alkali detergents, which are recommended for use with resin flooring and ensure that the correct dilution is used. Beware of cleaning liquids/polishes that may leave an oily or otherwise slippery residue.

Note: Phosphoric acid-based cleaners can damage epoxy resin-based materials and hypochlorite-based materials can cause bleaching. Undiluted cleaning chemicals can be very aggressive and can stain and even damage some resin flooring. In food preparation areas and other high hygiene areas, pressure washing with a bactericide at 60°C to 80°C or steam cleaning should be used (for floors suitable for steam cleaning, a 9mm thickness of CLI CRETE Heavy Duty Polyurethane Screed should be specified).

Any spillages of chemicals, particularly corrosive chemicals, should be cleaned off the surface as soon as possible to minimize the risk of damage or discolouration to the floor. Drip trays should be used if necessary. If spillages are allowed to dry, this results in higher concentrations of the materials which may lead to discolouration or even early failure; dried deposits of mineral-based cleaners can be extremely difficult to remove.

Any mechanical damage to the floor surface should be repaired as soon as possible to minimize the risk of damage spreading and the possibility of liquids penetrating along the bond line. Thin coatings may need to be overcoated periodically to maintain performance, particularly in high traffic areas.

Note: The information supplied in our literature is based upon extensive experience in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

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**Data Reliability**

All technical data provided in this document are based on laboratory tests. Actual performance may vary due to factors beyond our control.

Regional Compliance

Product specifications may vary based on local regulations. Please refer to the local Product Data Sheet for precise information.

Legal Disclaimer

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