

APCOFLOR ESD PRIMER



PRODUCT DESCRIPTION

A two component conductive epoxy primer designed for use in conjunction with an Apcoflor ESD SL system

FEATURES

- Specially designed as a primer for ESD floor coating
- Good bonding with sound old and new concrete surfaces
- Provides good adhesion between concrete surface and subsequent Apcoflor ESD SL Topcoat
- Quick drying characteristics

TECHNICAL DATA

Colour	Black
Appearance	Matt
Recommended DFT/ Coat	50 - 75 microns
Theoretical Covering Capacity	5.4 sq.mtr/ kg
Consumption	0.18 kg/ sq.mtr
Drying Time	Surface Dry : 30 hours Hard Dry : 16 hours Full Cure : 7 days
Mixing Ratio (By weight)	Base : Hardener 87:13
Induction time	30 minutes
Pot life	3 hours
Overcoating interval	Self : Min. 4hours Topcoat : Min. 8 hours Max : 24 hours, provided surface is clean and free from any contamination

The data given is for guideline only. The physical values are subject to normal manufacturing tolerances, colour and testing variances. The coverage & consumption figures are theoretical and do not allow for any additional material required due to surface porosity, surface profile, variations in level or wastage etc.

The actual drying time/ overcoat interval may be shorter or longer, depending on film thickness, ventilation, humidity, temperature etc.

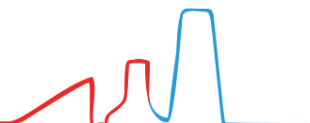
The information provided above is at 30°C and 65% relative humidity.

MECHANICAL/ PHYSICAL PROPERTIES

Bond Strength (ASTM D 4541) | Not less than 1.5 MPa (Concrete Failure)

Electrical properties

Surface to Ground resistance | $10^4 - 10^6$ Ohms



APPLICATIONS INSTRUCTIONS

Substrate Quality

- Concrete substrates must be sound and of sufficient compressive strength (minimum 20 Mpa) with a minimum tensile strength of 1.5 MPa
- A sound, clean and dry substrate is absolutely essential for successful coating application and ensuring maximum bonding between the substrate and coating system
- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. and have a moisture content less than 5% prior to application of the primer. Ensure that the substrate does not suffer from rising moisture and potential osmosis problems

Surface Preparation

New concrete floors

Should be at least 28 days old or have a moisture content of less than 5% before proceeding with epoxy primer application. Laitance and deposits on new concrete floors are preferably removed by light grit/ shot blasting, mechanical scarifying or grinding to achieve an open textured surface.

Old concrete floors

- Determine the general condition, soundness, presence of contaminants, presence of moisture vapour emissions and the best methods to prepare the surface to receive floor coating system. Mechanical surface profiling by grit or shot blasting, grinding or scarifying are the preferred floor preparation methods on old concrete floors
- Hydrophobic contaminants can be identified by a simple water drop test. Other contaminants can be identified by pH
- Remove localized weak or deteriorated materials from the surface. Remove bond-inhibiting materials such as oils, grease, wax, fatty acids, and other contaminants. This can be accomplished by the use of detergent scrubbing, low pressure water cleaning (less than 5000 psi), steam cleaning, or chemical cleaning. Acids and alkalis can be removed by neutralizing to form a water soluble salt and then high pressure water cleaning and mopping it off to dry state
- In the areas where the contaminants cannot be removed, complete removal and replacement of the contaminated surface is typically considered
- Surface defects such as voids, bug holes, excess porosity, and physical and chemical damage are usually filled or repaired prior to the installation of the floor coating system. Materials such as slurries, mortars, and polymer concrete are used to level, smooth and patch concrete surfaces. High spots must be removed by grinding

Note: Acid etching of the surface is not recommended as a preparation technique partly because of the implications for Health & Safety but also because the surface is left saturated with water and calcareous salts which may ultimately lead to debonding or osmotic blistering.

Mixing

Stir the base and hardener separately. If settling is observed in the base or hardener, loosen the settled material with the help of hand stirrer followed by power driven stirrer for quick homogenous mixing. Mix hardener gradually into the base under continuous stirring as per the stated mixing ratio. Apply after induction time and before expiration of pot life. Over mixing must be avoided to minimise air entrainment. It is recommended to mix a complete unit in the proportion supplied

Floor Joints

- All cracks and construction joints present, based on the depth of the crack, should be filled either with epoxy putty or mortar after primer application
- The expansion joints should not be overcoated with the coating and to be addressed with suitable material

Application

- All dust present must be removed by vacuuming prior to primer application. It is suggested that the product be applied by stiff brush/ roller. The primer should be well 'scrubbed' into the substrate to ensure full coverage, but care should be taken to avoid over application or 'ponding'
- The coverage would vary significantly based on the nature of the concrete surface. On porous surface where the primer is absorbed quickly leaving dry patches, a second coat is recommended
- Primed surfaces should be recoated within 24 hours.
- A minimum dry film thickness of 50 microns is recommended. Thinner T 141 (0 – 10 % by volume) may be used depending on the site condition
- Freshly applied primer should be protected from damp, condensation and water for atleast 24 hours
- At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, open time & curing times. High temperatures speed up the chemical reactions thus the time frames mentioned above are shortened accordingly

Application Conditions

- Residual moisture content of the concrete substrate should not exceed 5%
- No rising moisture & potential osmosis problems
- Substrate temperature should be at least 3°C above dew point but not above 50°C
- Recommended ambient temperature for application is between 10°C - 40°C
- Relative Air Humidity (RH) to not exceed beyond 80%

Cleaning

All tools and equipment can be cleaned with Thinner T 141 immediately after use.

Recommended Topcoat

Apcoflor ESD SL range

PACK SIZE	5 KG (Base: 4.35 KG & Hardener: 0.65 KG)
STORAGE	Shelf Life: At least 12 months if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between 5°C to 35°C, subject to inspection thereafter. Store in a cool, dry place and in accordance with local regulations
REGULATORY INFORMATION	Flash Point: Base - Not less than 24°C; Hardener - Not less than 24°C VOC: 615 gm/ ltr as per USA-EPA Method 24

SAFETY INFORMATION

- As a general safety measure, inhalation of solvent vapours or paint mist and contact of liquid paint with skin & eyes should be avoided. Forced ventilation should be provided when applying paint in confined spaces or stagnant air. Even when ventilation is provided, respiratory, skin and eye protection is always recommended while spraying paint
- Please refer our Material Safety Data Sheet prior to using the product

Disclaimer: To the best of our knowledge the information provided herein are true and accurate at the date of issuance. Since we have no control over the quality or condition of the substrate or the various factors affecting the use and application of the product, we do not accept any responsibility or liability arising out of use of the product. The company reserves the right to modify data contained herein without prior notice. Any change in data would normally be followed by issue of a new data-sheet. The user should check with the nearest sales office of the company and confirm the validity of the information, prior to using the product.

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