

APCOFLOR SL2 EPU



PRODUCT DESCRIPTION

Three components, solvent free, self-levelling epoxy polyurethane flooring

FEATURES & RECOMMENDED USE

- Self-levelling coatings with excellent flow & levelling characteristics
- Conforms to the Global Migration Standards laid down in US-FDA: 21CFR 175-300
- Very high abrasion, impact and mar resistance
- Excellent flexibility and tensile strength
- Resistance to aggressive corrosive environment
- Excellent inter-coat adhesion over aged/ old epoxy coatings
- Finds application in chemical & fertilizer processing and storage areas, pharmaceutical industry, automotive assembly & service areas and other heavy engineering industries with heavy movements and vibrations

TECHNICAL DATA

Colour	Range
Gloss	Glossy
Recommended DFT / Coat	1 – 2 mm
Theoretical Covering Capacity	0.32 sq.mtr /kg @ 2 mm DFT (0.5 sq.mtr/ litre) 0.64 sq.mtr /kg @ 1 mm DFT (1.0 sq.mtr/ litre)
Drying Time	Surface Dry : 6 hours Hard Dry : 24 hours Full Cure : 7 days
Mixing Ratio (by weight) (Base to aggregate ratio would vary with shade)	Base : Hardener : Aggregate 36.5 : 16.5 : 47.0
Pot life	30 minutes

MECHANICAL PROPERTIES

Compressive Strength (ASTM C 579)	72 MPa
Flexural Strength (ASTM C 580)	32 MPa
Tensile Strength (ASTM C 307)	18 MPa

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.

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.

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

Priming

- All surfaces to be primed with Apcoflor FP 110/ Apcoflor HFP 120 designed for maximum absorption and adhesion to concrete substrates. The primer should be applied immediately to the prepared substrate using stiff brushes and/ or rollers. The primer should be well 'scrubbed' into the substrate to ensure full coverage, but care should be taken to avoid over application or 'ponding'
- Allow the primer to dry before proceeding to the next stage; do not proceed whilst the primer is 'tacky' as this will lead to unsightly marks in the finished surface
- Porous substrates may require a second primer coat - when the first coat is directly absorbed into the substrate, but minimum over-coating times must still be observed
- Freshly applied primer should be protected from damp, condensation and water for at least 24 hours

Mixing

- Apcoflor EPU SL 2 flooring is supplied in 3 pre-weighed packs (Base, Hardener and Aggregate) which are ready for immediate on-site use. Part mixing of these components is not acceptable and will affect both performance and appearance of the finished floor
- A suitable power driven mixer such as a bucket mixer is recommended for uniform mixing of the screed material. Stir the base and hardener separately. Blend the aggregates in the bag. Mix hardener gradually into the base under continuous stirring. Mix the aggregates into the mixed resin portion uniformly under continuous mechanical agitation. Mix well for 3-4 minutes till the components become homogenous. Apply after induction time and before expiry of pot life

Application

- The product may be applied by a serrated/ notch trowel to the required thickness. The entire mixed material should be poured onto the prepared and primed surface and spread slowly and evenly. To ensure proper levelling and appearance avoid overspreading. The laid material should be rolled firmly with a spike roller to ensure compactness and de-aeration of the film. Always wear spike shoes when rolling with spike roller. The rolling should be carried out using a 'back and forth' technique along the same path. An overlap of 50% with adjacent paths is recommended. Further light rolling may be required to remove surface imperfections, or for subsequent release of trapped air. This should be done prior to the setting of the product. To avoid roller marks prevent over rolling of the coating
- The coverage & levelling would vary significantly based on the nature & levelling of the concrete surface
- Freshly applied Apcoflor EPU SL 2 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.

Note: Apcoflor EPU SL 2 should not be applied to asphalt, weak or friable concrete, unmodified sand/cement screeds, PVC tiles or sheet or substrates known to move substantially e.g. steel walkways.

In common with all epoxy materials some light shade changes may be experienced over the long term when placed in adverse exposure conditions. Any such change in shade is not regarded as being detrimental to performance

PACK SIZE	10 KG (Base: 3.65 KG, Hardener: 1.65 KG, Aggregate: 4.70 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: 25 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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