

FLORGARD EPU SL

SELF LEVELLING EPOXY-POLYURETHANE BASED FLOORING

Product Description

FLORGARD EPU SL is based on carefully designed solventless Epoxy-Polyurethane resin composition. It is a three component system consisting of base and hardener and hard wearing quartz fillers. It is a self levelling composition and forms a very smooth, attractive hygienic, hard wearing and chemical resistant floor topping.

Features

- Chemically resistant - good resistance to a wide range of chemicals
- Very high abrasion, impact and mar resistance
- Hygienic - provides a dense, impervious, glossy seamless floor surface which is easily cleaned
- Attractive - available in a wide range of colours to enhance the working environment
- Application Thickness: 1.0 – 2.0 & 5.0 mm
- Long service life

Green Building Compliance

This product has following distinct advantages

- Eco-friendly
- Low VOC
- Solvent free with a high level of mechanical, chemical and water resistance,
- Low odour
- Antimicrobial
- Low maintenance
- Easier cleanability
- LEED compliant

Uses

FLORGARD EPU SL is recommended for use where extremely hygienic, abrasion, chemical resistant and dust free environment is required. It is ideally suited for following industries.

Specific applications include:

- Pharmaceutical Industries
- Clean Rooms
- Food Processing Industries
- Chemical and fertilizer processing units
- Automobile servicing and assembly areas.
- Soft drink bottling plants
- Nuclear plants, computer and control panel rooms
- Industries like aerospace including airport hangers, electric and electronic Industries, picture tube manufacturing plants, textile mills.

Properties

Average Thickness	: 1,2 & 5 mm
Application	: Serrated Trowel
Finish	: Gloss/Semi Gloss
Pot Life @ 30 °C	: 25-30 mins
Compressive strength (ASTM C 579)	: 60 MPa
Flexural strength (ASTM C 580)	: 40 MPa
Tensile strength (ASTM C 307)	: 30 MPa
Bond strength to concrete (ASTM D 4541)	: (Elcomete pull of test) Exceeds Tensile strength of concrete
Hardness, Shore D (ASTM D 2240)	: 80
Taber Abrasion Loss/1000 Cycles (H22 wheels) (ASTM C-501)	: 30 mg
Curing Time	:
Initial Cure	6 hours,
Full Mech. Cure	48 hours
Ready for use	To walk – 24hrs
To light traffic	48 hrs
Full Chemical Cure	7 days

The values given above are average figures achieved in laboratory tests. Actual values obtained on site may show minor variations from those quoted.

Coverage

FLORGARD EPU SL: 1.6 kg/m² @ 1 mm
3.35 kg/m² @ 2 mm
9.8 kg/m² @ 5 mm thickness.

Method of Application

APURVA's system should be installed by approved contractors. Following information should be used as a guideline

Inspection and Surface preparation

The long term durability of the applied **FLORGARD EPU SL** topping is dependent upon the adhesive bond achieved between the flooring material and substrate. It is most important therefore, that substrate surface is correctly prepared prior to application.

1. New concrete or cementitious substrates should have been placed for at least 28 days and have a moisture content of less than 5% before topping with **FLORGARD EPU SL**.

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2. Before application, the surface to be coated should be free from loose particles, rust, oils, grease or earlier coatings and should be thoroughly dry.
3. After surface is dry, all repair work like sealing of joints, cracks filling of cavities and crevices should be carried out.
4. The self levelling action is very localised and does not eradicate irregularities of level present in the original substrate. It is most important, therefore, that adequate surface preparation and repair is undertaken prior to application of **FLORGARD EPU SL** flooring systems.

Concrete defects such as voids, bug holes, excess porosity, and physical and chemical damage are usually filled or repaired prior to the installation of the F/C system. (Materials such as slurries, mortars, and polymer concrete are used to level, smooth and patch concrete surfaces).

The laitance (A thin, weak, brittle layer of cement and aggregate on concrete surface) on in-situ bases and any surface sealer or curing membrane should be entirely removed by suitable mechanised equipment, e.g. shot-blasting, panning or grinding, to expose cleanly the coarse aggregate.

Old Concrete surfaces: All surface contamination, e.g. oil, paint and rubber, should be removed and adequate mechanical preparation carried out to achieve a sound and stable surface with exposed coarse aggregate. (Existing floor paints should be removed by mechanical abrasion or contained shot blasting. When clear of all surface contamination, the concrete should be prepared mechanically to remove all laitance and expose a fresh surface).

After surface preparation all loose debris and dirt should be removed by vacuum- equipment.

Priming:

For use over a concrete surface, **FLORPRIME WB / FLORPRIME EP** primer is recommended depending on substrate condition to ensure maximum product performance.

Laying of FLORGARD EPU SL

FLORGARD EPU SL shall be mixed and applied only by specialist flooring contractors who have been trained in the correct application procedures. Detailed method of statement is available on request

Mixing:

Pack components are pre-weighed for optimum performance. Never split packs. Empty contents of Base into a mixing container and pre-mix to assure the suspension of solids. Add Curing Agent and continue to mix to a uniform consistency for 1-2 minutes. Add the quantity of aggregates supplied and mix for 1-2 minutes. Mix with slow speed drill and helical spinner head for 2 minutes. Avoid high speed mixing that will entrain air into the mix.

Top coat

Spread the mixture on the floor immediately to the required thickness by means of rollers and serrated trowels. The floor should be rolled by a spike roller to remove trapped air. The floor shall self level to uniform colour and smoothness.

Special conditions

Colours

We shall always endeavour to supply the material in the colour shade ordered. However exact matching will not be possible.

Batch to batch colour variation may occur. Ensure that materials for final application are always drawn from the same batch.

Where colour matching is required over more than one order or delivery. Apurva's Technical department must be contacted prior to placing the order(s) and the requirement stated clearly on all orders relating to the project(s).

Substrate Requirements

- Must be of sufficient strength to support loads applied through the topping.
- Must be free from rising damp.
- All contamination must be removed to give a clean dry textured surface.

Substrate Movements

All moving joints must be carried through the **FLORGARD EPU SL** and properly sealed. Construction joints and cracks may be covered but if substrate movement occurs, the **FLORGARD EPU SL** will reflect the crack.



Repairs & Levels

Concrete floors are generally laid to a levels tolerance of +/- 3mm under a 3 metre straight edge. Whilst **FLORGARD EPU SL** has excellent local levelling properties, overall level deviations will not be eliminated by laying a self smoothing topping of 2-3mm.

When applied on old floors, all damaged areas of the floor should be made good and upto level using epoxy mortar.

Packaging

FLORGARD EPU SL (Base & curing agent) is available in 30 kg pack size.

Shelf life

FLORGARD EPU SL has a shelf life of 12 months if kept in warehouse conditions at 30°C in the original, unopened pack.

Storage conditions

Store in dry conditions between 5°C and 30°C, away from sources of heat and naked flames, in the original, unopened packs. If stored at high temperatures the shelf life will be reduced

Handling & Safety

Keep the containers tightly sealed when not in use. Avoid skin contact and inhalation of fumes (if any). While spraying it is advised to wear a mask. If it comes in contact with the body, wash affected parts with plenty of water. In case of persistent irritation, contact a physician.

Disclaimer: The manufacturer reserves the right to change the specifications. Apurva India Limited products are guaranteed against material manufactured and are sold subject to the company's Terms and Conditions of Sale. Whilst we endeavour to ensure that advice, specifications, recommendations and information given is correct, we cannot have control over how our products are applied and will not accept liability, directly or indirectly, arising from application of our materials.

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