

## DESCRIPTION

**EPO FLOOR SL** is a three pack solvent free epoxy system consisting of base, hardener and graded inert filler for self-leveling screed applications are provided separately for use in **EPO FLOOR SL** system. It can be applied from thickness of up to 6 mm depending on the procedure adopted. It is available in a range of colours.

## TYPICAL APPLICATIONS

**EPO FLOOR SL** is ideal for industrial or commercial locations where a hard wearing, hygienic, dust free environment is important e.g. laboratories, hospitals clean rooms, light industrial plants, schools, car parks, car-showrooms, laboratories, kitchens pharmaceutical industries and exhibitions etc.

Using **EPO FLOOR SL**, it is possible to produce seamless self-leveling epoxy paint, multi-layer screeds, self-leveling screeds and non-skid finishes.

## ADVANTAGES

**Hygienic:** It forms a dust free seamless floor which is Easy to clean

**Economy:** Fast application than epoxy screeds; Minimizes the down time.

**Durability:** Withstands foot and light vehicular traffic and has a good abrasion resistance.

**Chemical Resistance:** Very good resistance to industrial chemicals.

**Solvent free:** Low odour formulation.

## PRODUCT DATA

<b>Form</b>	3 component (Base, hardener & inert filler)
<b>Colour</b>	Different colors
<b>Packing</b>	48 Kg (Part A+ Part B+ Part C)
<b>Consumption</b>	3.5 Kg/m <sup>2</sup> ( for 2 mm thickness)
<b>Shelf life</b>	12 months in the unopened, original package as stored in dry and cool environment.

## TECHNICAL SPECIFICATION

Test Name	Standard	Average Result
<b>Mixed Density</b>	ASTM D1475	1.70 ± 0.10 g/cm <sup>3</sup>
<b>Pot Life @25°C</b>	--	80 ± 20 min
<b>Tensile Strength</b>	ASTM D638	> 14 MPa
<b>Abrasion Resistance</b>	ASTM D4060	6.65 g/m <sup>2</sup>
<b>Bond Strength with concrete</b>	ASTM C882	> 5 MPa
<b>Compressive Strength</b>	ASTM C579	> 75 MPa
<b>Flexural Strength</b>	ASTM D790	> 35 MPa
<b>Viscosity</b>	ASTM D2196	> 6000 Cp



## APPLICATION PROCEDURE

**EPO FLOOR SL** should be applied by specialist contractors who must follow the procedures laid down in the Product Method Statement. **EPO GULF SPECIALITIES** works with a network of such applicators that have been trained in the correct installation procedures. The following steps are involved in the application which would normally take place over a 2 to 3 day period.

## SURFACE PREPARATION

It is essential that **EPO FLOOR SL** is applied to sound; clean and dry surfaces in order that maximum bond strength is achieved between the substrate and the flooring system. All dust and debris should be removed prior to application of the product or its primer.

## New concrete floors:

New concrete, or cementitious substrates, should be at least 28 days old and have a moisture content not exceeding 5%. Laitance deposits on new concrete are best removed by light grit blasting, mechanical scabbling or grinding.

## Old concrete floors:

Existing concrete floors which require refurbishment must be prepared to ensure a strong adhesive bond between the flooring system and the existing floor. Mechanical cleaning methods are strongly recommended particularly where heavy contamination by oil and grease has occurred or existing coatings are present. To ensure adhesion, all contamination should be removed. Proprietary chemical degreaser may be used on small areas of light contamination only.

## Steel surfaces:

Steel surfaces should be degreased and grit blasted immediately prior to application. The prepared surface should then be treated with one coat of **EPO FLOOR PR**.

## PRIMING

All surfaces treated with **EPO FLOOR SL** should be primed with **EPO FLOOR PR**, a solvent free epoxy resin primer designed for maximum absorption and adhesion to concrete substrates. Add the entire contents of the hardener tin to the base tin and mix the two primer components thoroughly for at least 2 minutes - under no circumstances should part mixing be considered. Once mixed, 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 (see table below) 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 (see table below). The minimum over coating times will vary slightly according to the porosity of the substrate. However, they should be in accordance with the following ambient application temperatures.

20°C	: 8-12 hours
30°C	: 6-8 hours
40°C	: 4-6 hours

## MIXING

**EPO FLOOR SL** flooring is supplied in three pre-weighed packs (Base, hardener & inert filler) 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, and would further more automatically invalidate **EPO GULF** product guarantee.

Mix base and hardener component together in the mixing vessel at least for 30 - 60 seconds, using either a forced action mixer; or a suitable heavy duty drill machine fitted with paddle until an even colour is obtained.

Thereafter, the contents of the graded aggregate pack should be slowly added and mixing carried out for a further 3 - 5 minutes until a completely homogenous material is obtained.

## APPLICATION

The applicator should ensure that there are sufficient supplies of plant, labour and materials to make the mixing and subsequent application process a continuous one for any given, independent floor area. Once mixed, the material must be used within its specified pot life.

The material should be poured onto the prepared and primed substrate as soon as mixing is complete. It should be spread to the required thickness using a serrated trowel; with care taken not to overwork the resin, spreading evenly and slowly.

Immediately after laying, the material should be rolled, using a spiked nylon roller, to remove slight trowel marks, and to assist air release. 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, but should be prior to the setting of the product.

## Floor Joints:

All existing expansion or movement joints should be followed through the new floor surface. Joint sealant & joint geometry should be compatible with the floor type used; intended exposure conditions and likely movement characteristics of the substrate- consult the local **EPO GULF TECHNICAL DEPARTMENT** for more details.

## CLEANING

Tools and equipment should be cleaned in **EPO SOLVENT** immediately after use. Spillages should be absorbed with sand or saw dust and disposed of absorbed in accordance with local regulations.

## HEALTH AND SAFETY

**EPO FLOOR SL** Base and Hardener and **EPO SOLVENT** should not come into contact with skin or eyes or be swallowed. Avoid prolonged inhalation of vapors. Some people are sensitive to epoxy resins, hardeners and solvents. Gloves, goggles and barrier cream should therefore be used. Ensure adequate ventilation and if working in enclosed areas, suitable breathing apparatus is recommended.