Shieldfloor SL30

Multi-component, Solvent-free Epoxy Self-leveling Flooring

TECHNICAL DATA SHEET

Description

Shieldfloor SL30 is a multi-component, solvent-free epoxy self-leveling floor topping, formulated to provide a seamless and smooth finish, durable and chemical-resistant surface that provides a long-term flooring solution for industrial floors.

Uses

- Hospitals, clinics, laboratories, and other pharmaceutical and healthcare facilities.
- Warehouses, car parks, showrooms.
- Where durability and excellent abrasion as well as chemical and mechanical resistance are required.
- Industrial, commercial, and residential facilities.
- High traffic areas.
- Aircraft hangers and other facilities.

Characteristics / Advantages

- Solvent-free.
- Easy to clean and maintain.
- Durable and chemical resistant.
- Resistant to chemicals, stains, and spills.
- Resistant to heavy traffic and impacts.
- Provides a glossy, seamless surface that prevents the growth of mold and mildew.
- Environmentally friendly.
- Can be applied over uneven or damaged floors, filling in cracks and imperfections.

Standard Compliance

EN 13813- SR- B 2.0-AR 1.0-IR 9.0

Packaging

Shieldfloor SL30 is supplied in 15-L drums.

Typical Properties

Color / Appearance	Colored liquid
Mixed Density (23 °C)	1.75 ± 0.1 g/ml
Pot Life (23 °C)	40 – 60 minutes
Application Thickness	2 – 4 mm
Time for Foot Traffic (25°C)	24 hours @ 23 °C 18 hours @ 40 °C
Time for Heavy Traffic (25°C)	48 hours
Full Cure (25°C)	7 days
Compressive Strength (ASTM C579) @ 7 days	≥ 80 MPa
Flexural Strength (ASTM C580) @ 7 days	≥ 30 MPa
Tensile Strength (BS 6319-7) @ 7 days	≥ 20 MPa
Taber Abrasion (ASTM D4060) CS17 1000g, 1000 cycles @ 7 days	≤ 80 mg
Wear Resistance (BCA) (EN 13892-4) @ 7 days	≤ 60 microns
Bond Strength (EN 13892-8) @ 7 days	≥ 2.5 MPa Concrete Failure
Impact Resistance (ISO 6272-2) @ 7 days	> 9 N.m
Shore D Hardness (ASTM D2240) @ 7 days	> 80
Application Temperature	10 – 40 °C

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Application Instructions

1. Surface Preparation

The substrate must be free from dust, loose materials, surface contamination, and any materials that may reduce bond between the coating and the substrate.

Surface defects such as cracks, blowholes, and voids must be repaired using appropriate products from **Shield Concrete Repair** range.

Concrete substrates should be 28 days, with a relative humidity of less than 80%.

2. Priming

It is recommended to apply **Shieldprime EP** before application, at the rate of 5 m^2/ kg using a brush or a roller and allowed to achieve a tack-free condition (after 24 hours).

A second coat of the primer may be required for highly porous substrates.

3. Mixing

Components A and **B** should be stirred separately before being mixed to eliminate any case of settlement, transfer the contents of **components A** and **B** into a separate clean container, and start mixing using a low-speed mixing drill for 3 minutes while reaching the walls and bottom of the container until a homogeneous and consistent material is obtained.

Add the content of **Component C** into the mixed base and hardener, continue mixing for 2 – 3 minutes, and avoid mixing too vigorously to eliminate introducing air bubbles. Once mixed, the material should be used within its specific pot life.

4. Application

Apply the mixed material of **Shieldfloor SL30** immediately onto the prepared and primed substrate and use a notched squeegee or trowel to spread it evenly across the floor. Make sure to work in sections, ensuring consistent coverage, and to avoid the material setting before spreading. Then use a spike roller to remove air bubbles and to ensure an even finish. Roll in multiple directions for the best results.

5. Cleaning

Clean the tools and any uncured material using a suitable solvent. Hardened material should be removed mechanically.

6. Curing

Allow the final topcoat to cure completely (24 – 48 hours) before subjecting the surface to heavy use or traffic.

Chemical Resistance

Citric Acid (25%)	Resistant
Acetic Acid (5%)	Slight softening
Sulfuric Acid (25%)	Resistant with color change
Sulfuric Acid (50%)	Resistant with color change + slight softening
Sodium Hydroxide (50%)	Resistant
Ammonia Solution (10%)	Resistant
Potassium Hydroxide (50%)	Resistant
Hydrochloric Acid (10, 30%)	Resistant with color change + slight softening
Nitric Acid (10%)	Resistant
Nitric Acid (25%)	Resistant with color change + slight softening
Phosphoric Acid (20, 50%)	Resistant with color change + slight softening
Xylene	Resistant
White Spirit	Resistant
Diesel	Resistant
Gasoline	Resistant
Engine Oils	Resistant
Detergents	Resistant

ASTM D1308 / 7 days curing (Spot test @ 1 hour)

Consumption Rate

1.75 kg/m^2 per 1mm thickness.

This consumption rate is given for guidance only. Actual rates depend on substrate porosity and roughness.

15-L drum covers 5 m^2 at 3 mm thickness.

Shelf Life and Storage

Shieldfloor SL30 has a shelf life of 12 months when stored in its original unopened packaging in cool and dry conditions, protected from direct sunlight, heat, and moisture. Shelf life may be reduced if the recommended storage conditions are not followed.

Safety Instructions

The application should be done in a well-ventilated area with adequate air circulation, away from any heat source, and ensure having gloves, eye protection, masks, and protective clothing.

Avoid contact with the eyes and skin. In case of direct contact with the skin, wash the affected area immediately with water for several minutes. If it comes into contact with the eyes, rinse immediately with lukewarm water for at least 15 minutes and get medical advice or treatment if any emergency warning signs appear. Dispose of any leftover epoxy and waste materials according to local regulations. For further information, refer to the Material Safety Data Sheet.

Limitations

- Do not apply the product if the ambient temperature is less than 10°C.
- Hot weather practices should be adopted during application and curing if the temperature is above 35°C. In hot conditions, store the material in a cool environment 24 hours prior to mixing and application.
- Do not change the mixing ratio and ensure fully timed mixing is carried out as detailed to obtain proper performance and curing.
- To ensure uniform color and shade, use material with the same batch number. If using different batch numbers, mix their contents before use.
- Avoid disturbing the coated surface during the curing process, to prevent imperfections.
- **Shieldfloor SL30** is designed to be used internally and should not be exposed to direct sunlight or intense UV to avoid discoloration
- **Shieldfloor SL30** should not be applied onto surfaces that suffer from rising damp.

Technical Support

Refer to technical information, method statement, or technical support team for any inquiry.

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