



# STERLING TechnoCoat® FlexiShield SLP

High Performance, seamless, Semi flexible  
Self-Leveling, Polyurethane Floor coating system.

## Description:

TechnoCoat®FlexiShield SLP is a High performance, seamless, Semi flexible, Flow applied medium to heavy duty polyurethane floor coating System designed with the highest order of durability to resist abrasion, chemical attack and other physical aggression for commercial, semi-industrial and institutional applications. TechnoCoat®FlexiShield SLP provides high durability and excellent long term comfortable floor coatings system.

TechnoCoat®FlexiShield SLP consists of preweighed base & hardener components and a TechnoFloor® colour pack, all of which contain reactive elements that are essential to the installation of the system. TechnoCoat®FlexiShield SLP is designed for application at a nominal thickness between 3 mm to 6 mm. thickness design criteria would depend on service temperature and chemical exposures.

## Application Includes:

**TechnoCoat®FlexiShield SLP** is ideal for flooring application such as:

- Aircraft hangars.
- Chemical plants
- Garages
- Industrial environments requiring a UV stable and easy to clean surface.

## Features & Benefits:

- Abrasion resistant
- Flexible
- Seamless and hygienic finish
- Solvent free; low odour
- Improved impact resistance
- Attractive, light reflectant appearance
- Low maintenance

## Applications Instructions:

### Substrate Preparation

Inadequate preparation may lead to loss of adhesion and failure. With flow-applied systems, there is a tendency for the finish to mirror imperfections in the substrate. Grinding or light vacuum-contained shot-blasting is therefore preferred over planning for these systems. Percussive scabbling or acid etching is not recommended. Anchorage grooves should be cut to a minimum depth and width of 2x the flooring thickness to be laid, at the edges, day joints, up-stands, drains, doorways and at regular points across the floor, and all debris removed.

### New concrete floors

The base should be a minimum of Grade RC30 of BS 8500- 2: 2002 and should not contain a water repellent admixture. The surface strength when assessed using a rebound hammer should be above 25 or the surface tensile strength should exceed 1.5 MPa. The laitance and any surface sealer or curing membrane should be removed by mechanical means such as shot blasting or grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum equipment. For concrete bases in contact with the ground, a dampproof membrane should have been incorporated into the slab design, in accordance with the requirements of CP102 (Code of Practice for the Protection of Buildings against Water from the Ground).

### Old concrete floors

All laitance and surface contamination should be removed by mechanical means such as shot-blasting or diamond grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum. Heavy oil or grease deposits should be removed either mechanically, or by steam cleaning, or by biological treatment, then by high pressure water blasting followed by the application of a penetrating primer. Where oil or grease contamination has been severe or of long duration, these methods may prove unsatisfactory and in these cases removal of the affected base is necessary. In existing buildings without a functioning damp-proof membrane, the application of a surface-applied membrane should be considered. Hydrostatic pressure may, under certain circumstances, cause adhesive failure between the flooring and the substrate. Where this is likely to occur, such as in areas where the ground water table is higher than the substrate, and where external tanking has not been applied, pressure relief must be provided, e.g. by direct drainage. A close visual examination should be made to verify cleanliness and soundness. Any weak or suspect areas should be repaired.

### Priming

TechnoCoat®FlexiShield SLP should be applied as a primer coat at a coverage rate of up to a nominal 1 mm thickness; actual coverage rate will depend on concrete surface texture and porosity. This scratch coat is designed to prime and seal the floor. Mix the primer materials properly and spread evenly by trowel. The scratch coat should be allowed to cure for 12 - 48 hours at 20°C before applying the TechnoCoat®FlexiShield SLP. If the scratch coat has been allowed to cure for >48 hours, then the coat must be thoroughly abraded and a fresh layer of scratch coat applied. If severe pin-holing is evident in the cured scratch coat, indicating that air is rising from the substrate, then remedial action should be taken.

### Mixing

The base and hardener components of **TechnoCoat®FlexiShield SLP** should be thoroughly stirred. The entire contents of the colour pot should be poured into the base container and the two materials mixed thoroughly, then add the hardener component and mix for at least 3 minutes. The use of a heavy-duty slow speed, flameproof or air driven drill fitted with a mixing Paddle is desirable. Mix these components in the quantities supplied taking care to ensure all containers are scraped clean. Do not add solvent thinners at any time.

## Packaging

**TechnoCoat®FlexiShield SLP** is supplied in 18 kg composite packs including colour component. Packaging size may vary subject to local regulations and requirements.

## Shelf Life & Storage

24 months from date of production if kept in undamaged and unopened original sealed containers and store at protected area from direct sunshine in dry and cool condition at temperatures between 10°C-30°C.

## Cleaning

Tools and equipment should be cleaned with TechnoFix® Eco Cleaner immediately after use. Cured material can only be removed mechanically. Spillages should be absorbed with sand or sawdust and disposed of in accordance with local regulations.

## Products Included in this System

TechnoCoat®FlexiShield SLP Composite (incorporated into build up systems thickness of 3mm -6mm). For actual coverage rates, refer to the appropriate project specification. Detailed application instructions are available upon request.

## Limitations

TechnoCoat®FlexiShield SLP should not be applied on to surfaces known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A, or by a Hammond concrete/mortar moisture tester. Sterling Technotrade does not recommend acid etching as a method of floor preparation. If used, the method should be approved by the project consultant.

In common with all epoxy materials, some slight 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.

## Standard application

Immediately discharge and spread the mix over the application area, using a notched trowel to achieve the required coverage rate. De-aerate using a spiked roller. Spike rolling should be carried out within 10 minutes of application in order to avoid interfering with flow and surface finish. Ensure that anchorage grooves are fully wetted out with material. Do not return to spike roll older applied areas as the product is fast-setting and this action will leave spoiling marks on the applied floor. The finished floor should be protected from other trades using Kraft paper or similar breathable material. Polythene should not be used. Protect the installed floor from damp, condensation and water for at least 4 days.

## Chemical Resistance

**TechnoCoat®FlexiShield SLP** is resistant to a wide range of commonly used chemicals in the food, dairy and pharmaceutical industries, and engineering workshops. Good housekeeping practices should be employed. Please consult Sterling Technotrade technical representative for further advice. Some staining or discolouration may occur with some chemicals, depending on dwell time, temperature, type of chemical and degree of housekeeping employed. This does not necessarily affect the product service integrity or durability.

## Technical support

Sterling Technotrade offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer onsite technical assistance and dedicated specification assistance for the specific projects and locations.

## Typical Properties at 20°C after 28 days

Chemical Base	Polyurethane resin and hardener
Slip Resistance Pendulum Test to BS 7976-2	Dry > 50 Wet and antislip finish consult Sterling Technotrade technical representative
Compressive Strength (ASTM C109 )	> 50 MPa @28 days
Flexural strength	> 20 MPa
Tensile Strength ( BS6319-7)	> 6 MPa
Water absorption (ASTM C413)	<0.06%
Shore D Hardness (28d)	>80
VOC	< 10g/l Based on a fully mixed unit
Bond Strength ASTM D4541	> 2 MPa (concrete failure)
Application temperature range	+15 to +30°C
Pot Life	15 Mins
Pedestrian Traffic	24 hours
Light Wheeled Traffic	48 hours
Full Traffic	72 hours
Full Cure	7 Days
Chemical resistance	Excellent general chemical resistance for specific reagents contact Sterling Technotrade technical representative.

# STERLING TECHNOTRADE INDIA PRIVATE LIMITED

## The Specialist Construction Chemical Company®

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**Additional Information:** Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd - The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

\*Separate datasheet are available on these products.

**Disclaimer:** The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

Edition: 02/2018/001 Identification No: PD-091  
This datasheet supersedes all previous versions.

**Health and Safety instructions**

Some people are sensitive to resins so gloves and a barrier cream should be used when handling TechnoCoat®FlexiShield SLP. If contact with the resin occurs, it must be removed, before it hardens, with a resin removing cream. Follow by washing with soap and water. Do not use solvent.

The use of goggles is recommended but should accidental eye contamination occur, wash thoroughly with plenty of water and seek medical treatment immediately. Ensure adequate ventilation in volume and pattern in working area and do not smoke during use.

Consider property in proximity of the application area to prevent loss or damage. Protect your jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children and animals. Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment.

Product only for professional use.