



STERLING TechnoFinish® SolidCoat EC

High build, non-toxic, solvent free epoxy resin protective Coating and waterproofing lining for concrete and metal.

Description:

TechnoFinish® Solidcoat EC is a protective high build, non-toxic, coating system with outstanding chemical and mechanical properties based on solvent-free, epoxy resins which contain pigments and fine fillers specifically developed to protect concrete and metal.

TechnoFinish® Solidcoat EC is supplied as a two-component system, in pre-weighed quantities comprising pigmented base and a hardener, it requires only on-site mixing to produce an easily applied decorative and chemically resistant finish.

Application Includes:

TechnoFinish® SolidCoat EC is recommended for use in the following areas of application:-

- Heavy duty protective coating for concrete and steel.
- Internal protective lining for potable water concrete or steel tanks.
- Heavy duty wall and floor coating in food processing plants, grain silos, dairies, breweries, hospitals, pharmaceutical industries and car parks.
- High chemical resistant protective coating for power stations, oil refineries, and sewage treatment plants.
- Pipes and tanks

Features & Benefits:

- **High build coating-** Multi-purpose protective coating with high build capability, due to non-toxicity.
- **Low cost service life-** resistant to mould growth, chemical attack and abrasion.
- Does not induce bacterial and fungal growth.
- **Easy to apply-** solvent free, formulation makes it suitable for easily applied by brush, roller or airless spraying equipment.
- **Waterproof and protective-** Provides a waterproofing barrier or lining.
- **Solvent free-** Easy to clean, smooth gloss finish, with high build capability.
- Exhibits good mechanical properties.
- **Chemical resistance-** Excellent resistance to a variety of chemicals.
- Resistant to sewage effluents.

Shelf Life & Storage

When stored in warehouse conditions below 30°C, TechnoFinish® SolidCoat EC has a minimum shelf life of 12 months. Freezing and exposure to heat and/or direct sunlight should be avoided. Containers should be kept sealed and airtight to prevent any reduction in shelf life.

Packaging

TechnoFinish® SolidCoat EC is available in 5 kg and 20 kg composite pre weighted Packs.

Instructions for use

Surface preparation

Concrete surfaces-The Substrate should be sound, clean and free from contamination. Ensure concrete is at least 28 days old. Surface Laitance should be removed by grit blasting or water jetting. All exposed blow holes should be filled with epoxy paste using TechnoSeal®EPA 1500. Steel surfaces- Any metal surfaces should be blasted to a bright finish, meeting the requirements of Swedish Standard SA 2½ or equal.

Priming

TechnoFinish® SolidCoat EC is designed to be applied over well prepared steel and concrete substrates directly without a primer. If the application will be taken place over other substrates, please consult *STIPL's Technical department for advice.

Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with a suitable paddle should be used. Stir the content of each component separately to disperse any settlement. Add the entire content of the hardener to the base and mix for 3 minutes and until a uniform colour and consistency are achieved.

Application

TechnoFinish® SolidCoat EC coating can be applied using good quality rollers or short haired brushes or by airless spray. It is recommended that TechnoFinish® SolidCoat EC coating be applied in two coats of contrasting colours to ensure complete coverage. Prior to the application of each coat the surface should be examined for signs of pin-holing, etc. Where pin-holing is evident these should be filled using TechnoSeal® EPA 1500 thixotropic epoxy resin adhesive. If the application is delayed more than 16 hours at 40°C or 36 hours at 20°C after the previous coat (the higher the ambient temperature, the shorter the maximum period), then the previous coat must be thoroughly abraded to give an adequate mechanical key and solvent wiped.

Airless Spray

Faster rates of application are possible using airless spray equipment, for application by airless spray, use a 45:1 or higher ratio pump, minimum 9mm dia hoses and HD tip 19-23 thou is recommended.

Over Coating

Where areas need to be overcoated due to damage etc. it is important that the areas to be treated are well abraded using a stiff rotary wire brush or coarse sand paper to give an adequate key. Completely strip off any unsound coating and proceed with overcoating as for new work.

Use of glass fibre reinforcement

TechnoFinish® SolidCoat EC may be used in conjunction with glass fibre reinforcement to increase coating thickness, or where it is necessary to bridge static cracks in the substrate. The fabric should be laid directly onto the first coat whilst it is still wet, and should be pressed in and smoothed out with a split washer roller or suitable alternative. Second and subsequent coats may then be applied in accordance with the 'overcoating times' mentioned above. Open weave glass cloth in the range of 100 to 300 gm/m² is considered most suitable for this application.

Limitations

A minimum application temperature of 5°C should be observed at all times. TechnoFinish® SolidCoat EC should not be applied on top of existing coatings, but can be applied on top of itself. TechnoFinish® SolidCoat EC is not colour stable when exposed to direct sunlight or other UV light sources, or when in contact with some chemicals. TechnoSeal® UVR-TC or TechnoCoat® PU-TC may be used to provide colour stability. In high temperature conditions, of above 35°C, hot weather working practices should be adopted.

Health and Safety instructions

Some people are sensitive to resins so gloves and a barrier cream should be used when handling TechnoFinish® SolidCoat CR. 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

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.

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Please note that this datasheet supersedes all previous versions.

Equipment care & Cleaning

All equipment must be cleaned immediately after use with TechnoFix® Eco Cleaner or TechnoFix® CleanzoPlus. Similar cleaning procedures should be adopted for break periods exceeding 15 minutes duration.

Typical Properties at 25°C

Solids by weight	100 % (mixed)	Specific gravity	1.60 ± 0.1
Colour	Various	Bond strength over C25/30 concrete: ASTM D4541	≥ 2 MPa @ 7 days (substrate failure)
Pot life	90 minutes @ 25°C 55 minutes @ 35°C	Re-coatable Time	4 hr @ 25°C Minimum 24 hr @ 25°C Maximum
Compressive strength (BS 6319-2)	≥ 80 MPa @ 7 days	Tensile strength(BS 6319-7)	≥ 25 MPa @ 7 days
Flexural strength (ASTM D580)	≥ 30 MPa @ 7 days	Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss CS17 wheel	70 milligram
Water Absorption (weight)	< 0.1%	VOC (ASTM D2369)	< 20 g/ltr (complies with LEED)

Specification

The non-toxic, epoxy resin coating shall be TechnoFinish® SolidCoat EC, a 100% solids, solvent free, protective coating. The coating shall be moisture tolerant and, when cured, shall be suitable for use in contact with potable water. It shall further possess excellent bond and chemical resistance properties.

Chemical resistance

Resistant against: Dilute acids, dilute and concentrated alkalis, cleaning detergents and disinfectants, herbal, mineral and animal oils, fresh water and sea water, diesel, gasoline, alcohol and many other solvents.*Color change may be observed due to effects of chemicals. This study was held at room temperature. High temperature values and/or mix of chemicals may affect chemical durability.

Coverage

Approximately 5.0m² /litre @ 200 microns wft/coat. Coverage figures quoted for TechnoFinish® SolidCoat EC are theoretical, and based upon plain application (without glass fibre) to a properly prepared substrate of nominal C30 concrete. Since application conditions vary greatly; due to substrate porosity, quality of surface preparation, application thickness and wastage factors, the on-site figures may vary from those shown above.

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