STERLING® TECHNOTRADE
The Specialist Construction Chemical Company

TechnoFloor® EUL 5000

High Strength, Solvent free, self-smoothing epoxy Screed.

Description:

TechnoFloor® EUL 5000 consists of special epoxy resins and graded aggregates formulated using innovative, cutting edge technology designed to allow the product to flow freely whilst maintaining its depth and durability and to withstand chemical attack and impact shock.

TechnoFloor® EUL 5000 is supplied as a 3 component system comprising epoxy resin base, epoxy resin hardener and fillers. When correctly laid TechnoFloor® EUL 5000 will provide a surface ready to receive applications of other Sterling Technotrade's TechnoFloor® flooring system.

Application Includes:

TechnoFloor® EUL 5000 will provide a surface ready to receive applications of other Sterling Technotrade's TechnoFloor® flooring system.

Features:

- High strength.
- Cost eff effective.
- Good chemical resistance.
- Quick and easy to apply.
- Seamless.
- Durable.

Design Criteria

TechnoFloor® EUL 5000 is designed for application upto 5mm thickness. Greater thicknesses can be achieved by the use of other products in the TechnoFloor® range - consult the local Sterling Technotrade representatives for more details. Substrates should be surface dry and not suffer, or be likely to suffer, from rising dampness. If necessary, suitable damp-proof membranes should be installed to prevent this. Substrates should not have a moisture content greater than 5% at any time during the installation.

Specification Clause

The epoxy screed shall achieve a minimum compressive strength of 61 N/mm2 as per ASTM C579. Flexural strength of 22 N/mm2 and Tensile strength of >10N/mm2 @ 7 days as per BS 6319. The underlay shall have nil water absorption when tested as per BS1881 Part 122. The adhesion strength of the epoxy underlay shall be greater than the tensile strength of concrete.

Method of Application

Surface preparation

It is essential that TechnoFloor® EUL 5000 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, 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 scrabbling or grinding. 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 should be degreased and grit blasted to SA2½ immediately prior to application. The prepared surface should than be treated with one coat of TechnoFloor® EP.

Floor Joints & Cracks

Large cracks and damaged areas should be repaired with TechnoSeal® EP 1500 repair materials and leveled off. All existing expansion joints, movement joints are to be brought over through subsequent flooring system & to be treated with suitable sealants.

Joint sealant & joint geometry should be compatible with the floor type used, intended exposure conditions and likely movement characteristics of the substrate All other stable joints (dummy joints, etc.) are to be filled up prior to lay the topping as per the designed thickness. Joints should be cleaned, prepared as per specification & filled with suitable joint filling material. Consult technical team for detailed specification in case of other type of joints.

Priming

All surfaces treated with TechnoFloor® SL 2000 and SL 1000 should be primed with TechnoFloor® EP 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 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: 6-24 hours, @30°C: 3-16 hours & @40°C: 2-10 hours

Fire

TechnoFix® CleanzolPlus and TechnoFloor® EP are flammable. Keep away from sources of ignition. No smoking in the event of fire extinguish with CO2 or foam. Do not use a water jet. TechnoFloor® EUL 5000 is non-flammable.

Storage

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.

Cleaning

All tools and equipments should be cleaned immediately with TechnoFix® CleanzolPlus -Epoxy cleaner solvent after application on using fresh water. Hardened materials must be cleaned mechanically.

Packaging

TechnoFloor® EUL 5000 is supplied in 26 kg pre-weighted kit size.

Product only for professional use.

Health and Safety instructions

TechnoFloor® EUL 5000, TechnoFloor® EP and TechnoPur® Eco Cleaner should not come in contact with the skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water.

Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately- do not induce vomiting

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.

Mixing

TechnoFloor® EUL 5000 flooring system is supplied in multi pre-weighed packs (base, hardener, Filler and colour pack) 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. Mixing should be carried out using either a forced action mixer; or a heavy duty, slow-speed drill fitted with an electric drill in slow circular motions to assure complete mixing.

Mixing should not exceed 3 minutes. The components should be mixed in a suitably sized mixing vessel. The colour pack should be added to the base container and mixed for 15-30 seconds, until homogeneous. Then add the hardener and mix for further 30 seconds, until an even colour and texture is obtained. Thereafter, the contents of the filler pack should be slowly added and mixing carried out for a further 3 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 - see "Properties" section. 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. The required thickness must be achieved in one application. 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.

Typical Properties at 27°C:

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

Appearance	Different colour shades
Mixing Ratio (Pack A : Pack B : Pack C)	Supplied in four pre-weighed packs (base, hardener, aggregate and colour pack) which are ready for immediate on-site mixing.
Mixed Density	Approx. 1.80-1.85 gm/cc
Pot Life	Approx.60 mins
Initial hardness	16 hours@ 35ºC
Full cure	7 days
Pull of Adhesion Strength Crushing Resistance (BS 8204 part 1)	>2.2 N/mm2
Compressive strength (ASTM C579)	>60 N/mm2 @ 7 days
Flexural strength (BS 6319 part 3)	22 N/mm2 @ 7 days
Tensile strength (BS 6319 part 7)	>11 N/mm2 @ 7 days
Tensile Modulus (BS 6319 part 7)	>880 N/mm2

*Note: The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary, dependent on actual site conditions. The slip resistance figures given above are affected by application techniques and prevailing site conditions. Slip resistance can reduce over time due to poor maintenance, general wear or surface contaminants.

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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.

Shelf Life

Shelf life is 24 months from the date of manufacturing. Store in a cool & dry place in unopened condition.

Curing

For allowing the operations over floor coated area, the material has to achieve its minimum mechanical properties to perform, i.e.

Foot Traffic: 24 hours @ 25°C.
Vehicle Traffic: 7 days @ 25°C.

Precautions & Limitations

TechnoFloor® EUL 5000 should be mixed with Colorant of appropriate colour as mentioned above to obtain the required shade as per RAL K5. Material should be mixed / laid well within the pot life period. Pot life will change depending on the ambient temperature and condition. Part mixing of material is not recommended. It will maintain the gradient of the base substrate. Application should not commence if the temperature of the substrate is below 5°C. Ensure the vapour barrier underneath the concrete substrate. Substrate moisture content must be less than 5%.