

Talrakflortop® ES 5000

3 – 5mm thick high build, abrasion and impact resistant epoxy screed



The Construction Alchemists

Description

Talrakflortop® ES 5000 is a three-part solvent free system comprising epoxy resin with modified amine hardeners and optimally graded heavy density fillers. It is spread evenly and trowel finished. Talrakflortop® ES 5000 is supplied in prepacked units ready for onsite mixing and application. The finished and cured floor will exhibit a coarse-grained surface texture of even colour. A two-part epoxy sealing coat from Talrakflorkote range is recommended as a topcoat for Talrakflortop® ES 5000.

Features & Benefits

- Durable - Exceptional abrasion resistance
- Seamless - No joints, bump free movement of traffic
- Good Surface traction - for vehicular and pedestrian movement
- Easily laid - Designed for easy laying to a fair finish
- Colour range –Normal grey. But can be provided in selected colours on demand

Primary Application

Talrakflortop® ES 5000 provides an extremely high strength chemical resistant epoxy screed for floors, subjected to abrasive and impact loads.

It is suitable to protect concrete floors against abrasive loads from trolleys, forklifts, pallet trucks in heavy engineering industries, warehouse aisle, trucking and loading bays, chemical industries, metallurgical industries, breweries, automobile industry, etc.

Technical Properties

The following properties of mixed material represent average values achieved in the laboratory. The practical values, on site may slightly vary.

Appearance	Grey
Potlife	30 to 50 minutes @ 29°C
Specific gravity	1.9 - 2.1 @ 29°C
Initial hardness	10 - 12 hours
Compressive strength (As per BS 6319 Pt 2)	40-50 MPa @ 24hours 75-85 MPa @ 7 days
Flexural strength (As per BS 6319 Pt 3)	20-30 MPa @ 7 days
Tensile strength (As per BS 6319 Pt 7)	12-15 MPa @ 7 days
Abrasion resistance (As per IS:9162-1979)	0.25 - 0.30 mm (Average loss in thickness)
Notched Izod Impact Strength (ISO 180)	30 J/m
Full cure	5 - 7 days

Specification Clause

The high strength, abrasion and impact resistant epoxy resin tough screed shall be a solvent free, three component system consisting of epoxy resin, modified amine hardeners filled with specially graded and selected high crushing strength, heavy density aggregates. The tough screed shall be laid by trowel as a durable abrasion resistant screed at 3 to 5 mm thickness* which on curing should achieve a compressive strength of 75-85 MPa @ 7days, flexural strength of 20-30 MPa @ 7 days, Tensile strength of 12-15 MPa @ 7 days.

The maximum wear on the screed when tested as per IS 9162-1979 shall not exceed 0.30mm and the minimum value of Notched Izod impact strength as per ISO 180 shall be 34 J/m.

Application Instructions

Surface Preparation

The substrate has to be sound and solid as well as free of bond inhibiting agents such as grease and oil. Remove all bond breaking substances such as laitance, loose particles, dust, etc. The substrate can be prepared according to need by shot blasting, grinding or brushing.

New Concrete Floors

The concrete must be at least 28 days cured. The moisture content of concrete floors should be less than 5%. Laitance, deposits on new concrete floors are best removed by light grit-blasting, mechanical scrubbing or thorough wire brushing. On smaller areas, thorough acid etching using mild acid, may be considered. After etching, the floor should be thoroughly washed with clean water and shall then be allowed to dry.

Old Concrete Floors

Mechanical cleaning methods are strongly recommended on old concrete floors particularly where heavy contamination by oil and grease have occurred or existing coatings are present. This may well have been absorbed several mm. into the concrete. To ensure adhesion, all contamination should be removed. All dust and debris should be removed prior to Talrakepoprime LV priming.

Priming

The concrete surfaces to be treated with Talrakflortop® ES 5000 shall be primed with Talrakepoprime LV. Due to its low viscosity, it is absorbed by the substrate and improves adhesion of the Talrakflortop® ES 5000. It also acts as a surface sealer. The entire hardener part of Talrakepoprime LV shall be emptied to the base tin and mixed thoroughly using a slow speed heavy duty paddle mixer. The mixed primer shall be applied immediately on the clean and prepared surfaces using a stiff nylon brush uniformly avoiding puddling.

If the concrete floor is porous Talrakepoprime LV, will be absorbed quickly indicated by light coloured dry patches. In such cases a second priming coat is recommended. After 30 minutes solvent in Talrakepoprime LV evaporates and the primer will become tacky. This time is dependent on climatic conditions.

* Note: When the thickness of the screed to be laid exceeding 5mm per layer, please notify Talrak.

Mixing

A suitable forced action mixer such as a paddle fitted into a heavy duty, slow speed, electric hand drill or a similar equipment, is recommended for mixing.

The entire contents of hardener tin of Talrakflortop® ES 5000 should be poured into the base container and mixed thoroughly until homogeneous mix is obtained. It is recommended that the fillers part supplied in a bag shall be mixed well in the bag itself, before adding to the mixed resin and hardener, while mixing is continued for a further 2-3 minutes, until all the components are mixed uniformly. The materials must be used within the specified potlife. If the temperature is higher the pot life will be reduced.

Application

The mixed material should be spread to uniform thickness on the primed surface using a steel trowel. Screed box may be used for uniform spreading of the mixed material, if the area is large. The material spread, shall be compacted well and finished with a steel float or trowel. For large areas power trowel can be employed.

Note:

Expansion joints - Talrakflortop® ES 5000 should not be applied into the expansion joints.

Sealing - Although Talrakflortop® ES 5000 is impervious, in constantly wet operation areas, or where a high degree of cleanliness is required, it may be sealed with Talrakflorkote range of coatings. For this, Talrakflortop® ES 5000 must be at least 1 day old and high spots such as cold joints and trowel marks rubbed down.

Cleaning

All tools and equipment should be cleaned immediately after use with Talrasol GP.

Estimating

Packaging

Talrakflortop® ES 5000 is supplied in 16 kg combo pack.

Talrakepoprime LV is supplied in 1.11 kg and 4.44 kg combo pack.

Coverage

16kg of Talrakflortop® ES 5000 will cover 1.8 sqm at 5mm thickness.

1kg of Talrakepoprime LV will cover 5-6m².

The coverage figures given are theoretical. Due to wastage factors and the variety and nature of possible substrates, practical coverage figures may vary.

Storage

Talrakflortop® ES 5000 has a shelf life of 12 months when stored in a dry place below 35°C in unopened containers.

Precautions

Health & Safety Instructions

Some people are sensitive to epoxy resins and solvents. So, gloves, barrier creams, protective clothing and eye goggles should be worn when handling the resin products. If accidental contact occurs, the resin should be removed before it hardens with resin removal cream followed by washing with soap and water. Solvent should not be used. If eye contamination occur washing with plenty of clean water should be commenced and medical attention should be sought immediately. Good ventilation should be ensured. Smoking while handling/application is prohibited.

Fire

Talrakepoprime LV and Talrasol GP are flammable. Adequate ventilation should be ensured. Smoking or use near a naked flame is prohibited.

Flash Point

Talrakepoprime LV	25°C
Talrasol GP	33°C
Talrakflortop® ES 5000 Hardener	50°C

Important note :

Talrak products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Talrak endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



Talrak Construction Chemicals Pvt. Ltd.

An ISO 9001:2015 Certified Company

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