

Tek-Screed ES Epoxy Screed

Coloured heavy duty epoxy floor screed



Technical Data Sheet

Description

Tek-Screed ES epoxy screed is a three component, trowel grade, heavy duty, floor topping consisting of epoxy resin, hardener and graded quartz filler. The product gives excellent mechanical properties, resistance to wear and to high range of chemicals. The product is specifically designed as a heavy duty topping for industrial floors of thickness 5 -20 mm.

Advantages

- High strength
- Non slip surface
- Resistance to impact and abrasion
- Excellent resistance to chemicals
- Non tainting
- Available in standard grey and primary colours

Uses

Tek-Screed ES epoxy screed is formulated for use in industrial floor as below :

- Chemical plants
- Machine service areas
- Warehouses
- Garages
- Loading ramps
- Food processing plants

Physical Properties*

Property	Typical Results
Compressive strength ASTM C 109	>85 MPa – at 28 days
Flexural Strength ASTM C 580	>32 MPa – at 28 days
Tensile strength (ASTM D 638)	22 MPa
Abrasion resistance (ASTM C779 method c)	76.1mg loss/1000 cycles
Impact resistance	No cracking
Bond strength to concrete	Greater than cohesive strength of concrete
*The above properties are average laboratory values	

Application Properties

Density	2.0 g/cc
Pot life	60 minutes at 25°C
Touch dry	10 hours at 25°C 6 hours at 35°C
Light foot traffic	18 to 24 hours
Full cure	3 days (exposure to chemicals)

Specification

The epoxy resin-base bonding system of **Tek Screed ES Epoxy Screed** confirms to ASTM specification C881 types 3,4 Grade 1, class B, C, D , E, F

Chemical Resistance

Hydrochloric acid, 30%: excellent
Nitric acid, 20%: good
Acetic acid, 10%: very good
Sulphuric acid, 40%: excellent
Sodium hydroxide, 50%: excellent
Kerosene: excellent
Ketones: non resistant
Alcohol: good
Skydrol: excellent
Petrol: excellent
(For chemicals not listed, please consult Spraytek)

Packing

Tek-Screed ES epoxy screed is available in 16 Kg kit .

Theoretical Coverage

1.6 square meter per kit at 5 mm thick and 0.8 square meter at 10 mm thick.

NOTE: Actual coverage may be less and dependent on substrate profile and porosity.

Shelf Life

12 months when stored in cool dry environment in factory packed unopened containers.

Installation Guidelines

Spraytek provides detailed method statements on all its products for use in various applications. These must be referred to prior to starting the work. The information below is a summary intended for guidance only.

Surface Preparation

Substrates must be structurally sound. Loose or unsound substrate should be removed. Surfaces must be entirely free of oil, grease, paint, corrosion deposits, dust, laitance or other surface deposits. The substrate must be prepared to create a 'key' for bonding by shot blasting.

Any blow holes should be filled with **Tek-Crete EFC**. The moisture content of the concrete substrate should be less than 5%.

Priming

The substrate must be primed using **Tek-Prime SF** primer and allow to dry, prior to application of **Tek-Screed ES epoxy screed**. Ensure that no ponding of the primer during the application and applied to appropriate thickness and it is not applied too thick. If the primed surfaces left to dry for more than 24 hours the surfaces has to re-primed.

If the concrete substrates are too porous, then it is recommended to use multiple coats of **Tek-Prime SF** to seal of the surfaces.

Mixing

Tek-Screed ES epoxy screed is supplied as a three component epoxy resin product. Add 'Part B' to the 'Part A' into suitable clean container and slowly mix with low speed drill (300-500 rpm) with mixing paddle.

Add part C filler and mix using a slow speed electrical drill fitted with a paddle (200 – 300 rpm). Mix approximately for 3-5 minutes to achieve streak free consistency. Improper mixing will result in a soft or tacky / uncured surface. DO NOT add thinner or any solvents.

Application

Spread the mixed **Tek-Screed ES epoxy screed** onto the primed, tacky substrate at a uniform thickness. Compact the epoxy coating with a wood float. Final finish with a steel trowel to a closed fine texture and allow to cure.

Sealing

Although **Tek-Screed ES epoxy screed** is impervious, it is recommended to seal the surface especially if the floor will be used in a hygienic situation or when this will be subject to constant wet operations. Consult Spraytek technical department for further details.

Cleaning

Tek-Screed ES epoxy screed can be cleaned off from the tools and equipment while still wet with Tek clean.

Precautions

Do not add any thinner or solvent.
Do not mix by hand.
Do not part mix, use full pack.
Do not apply in wet conditions or at temperature below 3°C of the dew point.
Do not over mix the product.
Do not dispose into water drains.

Technical Support

Spraytek offers full technical support package to specifies, contractors and end users, as well as technical assistance on site and after sales consultations.

Health & Safety

As with all chemical products, caution should always be exercised. Protective clothing, such as gloves and goggles, should be worn. See packaging/MSDS for specific instructions.

Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

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