

# Talrak Flexeal FR Plus

Ultra-flexible high performance elastomeric, fibre reinforced  
liquid applied cementitious waterproof coating



The Construction Alchemists

## Description

Talrak® Flexeal FR Plus is a two-component elastomeric, fibre reinforced liquid applied waterproof coating based on cementitious binders, reinforced with compatible micro fibres, special additives, graded particulate fillers, high grade acrylic polymers to provide superior water protection. It has excellent bonding properties to all mineral substrates without a bond breaking interface. It provides a seamless, waterproof membrane upon curing. It has high resistance to UV rays exposure.

## Features & Benefits

- Flexible and fibre reinforced to accommodate thermal movements
- Superior water impermeability
- Excellent barrier to carbon dioxide, chloride & sulphate ions
- Allows water vapour to escape from the substrate
- High resistance to the effect of long-term weathering, durable in all climate conditions including UV attack
- Non-toxic, suitable for water tanks
- Excellent bond to concrete and masonry
- Excellent crack bridging ability

## Primary Application

Talrak® Flexeal FR Plus is mainly used for waterproofing and to protect reinforced concrete structures from attack by atmospheric exposure conditions. It remains constantly flexible in all environmental conditions and is suitable for all types of concrete structures. It is suitable for application on concrete, brick and block work substrates and is equally suitable for waterproofing new structures and remedial waterproofing of existing structures. It provides a seamless, flexible waterproof coating suitable for roofs, water retaining structures, drainages, basements and retaining walls from positive side.

## Technical Properties

Pot life of mixed material	40 minutes @ 27°C
Density of mixed material	1.2 – 1.5 g/cc
Tensile strength (As per ASTM D638)	0.82MPa
Bond strength with concrete (As per ASTM D4541)	~ 2 MPa
Water absorption (As per ASTM D570)	< 1%
Water vapour permeability test (As per ASTM D1653 - Dish method)	1.3gm/sqm/24hours
Static crack bridging ability	> 2mm wide
Elongation at break	> 200%

## Application Instructions

### Surface Preparation

All surfaces which are to receive the coating must be free from oil, grease, wax, dirt, laitance or any other form of foreign matter which might affect adhesion. Typically, concrete surfaces can be cleaned using high pressure water jet or grit blasting or by proper wire brushing. Spalled surfaces or those containing large blow holes, cracks and other such defects should be repaired using Talrak's Rendercem range of repair mortars prior to the application of primer.

### Priming

To further improve waterproofing and bonding properties on porous substrates, it is recommended to prime the substrate using **Koster Polysil TG 500** - a polymer and silicate based deeply penetrating primer. It hydrophobes the porous substrates. The surfaces to be primed should be in saturated surface dry condition before the application of primer.

### Mixing

Part B (Liquid) of Talrak® Flexeal FR Plus should be poured into a suitable container and mixed with a mechanical mixer using slow speed drill fitted with a paddle mixer. The part A (Powder) should be added gradually to avoid lump formation and mixed for about 2 - 4 minutes. The mixed material should be immediately used after mixing. Do not mix more material than can be used within the pot life. Keep stirring the mixed material during the application. Do not add water.

### Application

The mixed material shall be applied using brush, roller or appropriate spray equipment. It should be applied at a minimum thickness of 1mm. Apply second coat only when the first coat will not be damaged by further applications (Average drying time is 4 to 6 hours at normal temperature). Whenever a high tear resistance of coating is desired, a non-woven polypropylene fabric should be sandwiched between first and second coats. Allow the coating to dry completely before proceeding with protection layers.

A polypropylene fleece may be placed on the top layer for protection of the Talrak® Flexeal FR Plus waterproof coating. It is recommended to provide additional protective layers such as concrete screed/plaster/tiles etc., Sprinkle coarse sand on wet surface of coating for better adhesion of screed.

### NOTE:

1. The application of Talrak® Flexeal FR Plus should not be done if the temperature of the substrate is below +10°C or above +40°C.
2. In areas subjected to moderate and heavy loads / hydrostatic pressure, minimum 2mm thickness of coating is recommended.

### Cleaning

Talrak® Flexeal FR Plus should be removed from tools and equipment with clean water immediately after use. Hardened material can only be removed mechanically.

## Estimating

### Packaging

Koster Polysil TG 500 is supplied in 10 kg jerry can.

Talrak® Flexeal FR Plus is supplied in 20kg combo pack (Part A:

Powder = 10kg and Part B: Liquid = 10kg).

Other pack sizes are available on request.

### Consumption

Koster Polysil TG 500: 0.1 - 0.25 kg/sqm.

Talrak® Flexeal FR Plus: 1.2 – 1.5 kg/sqm @1mm thickness.

However, the actual consumption may vary depending upon the substrate condition and thickness of the material used.

### Storage

The Powder component may be stored for up to 12 months when stored under standard warehousing condition in unopened original sealed packing.

The Liquid component may be stored for up to 18 months when contained in its original sealed packing.

### 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 these products. If accidental contact occurs, it should be removed before it hardens with resin removal cream followed by washing with soap and water. Do not use solvent. If eye contamination occurs then wash with plenty of clean water and seek immediate medical attention. Ensure good ventilation and do not smoke during use.



**Talrak Construction Chemicals Pvt. Ltd.**

An ISO 9001:2015 Certified Company

#### Works:

Plot No. 115-A, 1st Phase. Harohalli Industrial Area,  
Kanakapura Taluka - 562 112. Ramanagar Dist.

[www.talrak.in](http://www.talrak.in)

#### Important note :

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