Talrak® Flexeal Elastic

Two component flexible, polymer-modified, cementitious waterproof coating

The Construction Alchemists

Description

Talrak® Flexeal Elastic is a flexible, two component polymer modified coating that waterproofs and protects concrete, masonry, brick and some natural stone substrates with crack bridging properties. Talrak® Flexeal Elastic has excellent adhesion characteristics and provides a seamless system which can be top-coated with rough surfaced tiles, pavers, paint, or other coatings. It consists of Talrak® Flexeal Elastic powder (Part A) and liquid (Part B). It requires only the addition of clean water at site to produce an easily brushable coating. Talrak® Flexeal Elastic can be applied by a slurry brush, roller or trowel to obtain the desired thickness.

Features & Benefits

- Excellent barrier to carbon dioxide, chloride and sulphate Ions.
- Vapour permeable - No blistering of coating
- Easy to use – can be brush, roller applied.
- Waterproof – resistant to 3 bar (positive side water Pressure
- Non toxic
- Flexible, with thermal expansion similar to concrete.
- Excellent bond to concrete and masonry.
- Crack bridging : 1-2 mm
- Weathering tolerant
- Bonds well to damp substrates without priming

Primary Application

Talrak® Flexeal Elastic is a high performance flexible cementitious coating used for waterproofing and to protect atmospherically exposed reinforced concrete structures from attack by acid gases, chloride ions, oxygen & water.
Talrak® Flexeal Elastic is suitable for all types of structures including those in coastal environments. Horizontal waterproofing beneath masonry external waterproofing of old and new buildings against ground moisture, humidity and pressured water.

Waterproofing beneath tiles:

- Waterproofing beneath tiles in wet rooms, where water impermeability against long term and permanent water stagnation table is present i.e. in bath rooms, kitchens, shower rooms, on balconies and terraces.
- For waterproofing inside swimming pools The product can be used on concrete, brick and block work substrates and is equally suitable for new and existing structures. The product is designed to reface and even out variations in concrete and masonry surfaces and bridge shrinkage cracks. It provides a seamless, flexible waterproof coating suitable for water tanks, reservoirs, drainage culverts basements and roofs. The product provides a tough durable water resistant coating which can withstand light pedestrian traffic.

Standards compliance

Tested to ASTM D4060, ASTM D4541, ASTM D638, ASTM C836, ASTM D412.

Technical Properties

Pot life	30 mins @ 30°C
Mixed density	1.68g/cc (brushable consistency)
Tensile strength (As per ASTM D 638)	0.84MPa (at 1.5mm thickness)
Colour	Grey
Application temp	Not less than 10°C
Adhesion to concrete	Excellent
Toxicity	Non-toxic
Static crack accommodation	1- 2 mm
Elongation	Enough to bridge 1 - 2 mm wide cracks
Pull of adhesion strength (MPa) on concrete surface @28 days	1.24 MPa

Application Instruction

Surface preparation

The surface must be clean, sound and fine pored. It must be free from bond breaking materials such as grease, wax, Laitance, dust, pockets, cracks and ridges. Talrak® Flexeal Elastic is suitable for smooth concrete, screed, mastic asphalt, plaster, gypsum board and masonry. Use suitable methods such as e.g. wire brushing, vacuuming, grinding, milling, shot blasting and water jetting. to prepare the substrate dependent on its condition.
Details:

- Fillet cove, ledging corner: Form between masonry and foundation a fillet cove of 4 cm thick with pre-blended mortar Talrak's Rendercem™ repair mortars or cement based mortars. Spalled surfaces or those containing large blow holes, cracks and other such defects should be repaired using Rendercem™ repair mortars.

Mixing

Pour and mix approx. 2/3 of the Part B liquid component into a clean container having clean fresh water in the proportions shown below and add Talrak® Flexeal Elastic powder part A component whilst stirring until a lump free mass is achieved. Mixing time of 2 - 3 minutes is required. After that, add the remaining liquid component and stir until a uniform consistency is achieved. Talrak® Flexeal Elastic should be immediately used after mixing. Do not mix more material than can be consumed within the pot life. Keep stirring Talrak® Flexeal Elastic during the application.

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Mixing Proportions

Talrak® Flexeal Elastic	Brushable Application	
Components	**Inds. Pack**	**Small Pack**
Part A (Powder)	15kg	5kg
Part B (Liquid)	5kg	1.76kg
Water	3 liter	1 liter

Application

For best results, surfaces should be damp during application. Talrak® Flexeal Elastic can be applied by brush, roller or appropriate spray equipment. If larger thickness is required, it can be trowel applied.

At least two coats of Talrak® Flexeal Elastic are necessary. The applied thickness of the waterproofing must correspond with the required minimum thickness for the expected degree of waterproofing.

Apply second layer only when the first coat will not be damaged by further applications (at +20 °C after 4 hours at the earliest). Due to the possibility of crack formations avoid applied thicknesses greater than 2 kg/m^2 (= 1 mm dry film thickness) in one application. For protection of the Talrak® Flexeal Elastic waterproofing a tear resistant polypropelene fleece of 70 gsm may be embedded into the last layer. The application of Talrak® Flexeal Elastic should not be done if the temperature of the substrate is below 10^{0}C. When applying Talrak® Flexeal Elastic on hot substrates i.e., over 30^{0}C surface temperature, saturate the surface with water. Apply Talrak® Flexeal Elastic in 2 coats. The second coat of Talrak® Flexeal Elastic shall be applied as soon as the first coat has reached touch dry state. It is recommended that for general surfacing Talrak® Flexeal Elastic should be applied at a minimum thickness of 1mm. Areas subjected to moderate and heavy loads/hydrostatic pressure, minimum 2mm thickness coating is recommended with screed above.

Allow the Talrak® Flexeal Elastic coating to dry before covering with screed. Sprinkle coarse sand on wet surface of final coating for better adhesion of screed. A fleece reinforcement is recommended.

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Average drying time is 4 to 6 hours at normal temperatures.

Cleaning

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

Estimating
Packaging

Powder component : 15kg & 5kg packs
Liquid polymer component : 5kg & 1.76kg containers

Coverage

This depends on the required consistency. The approximate coverage per pack at even consistency is as follows:

Consistency : Brush application
Coverage (15kg + 5kg pack) : 10 - 12m^2 @1mm thickness
Coverage (5 + 1.76 pack) : 4 - 4.5m^2 @1mm thickness

Actual coverage for the given surface should be determined by trials.

Storage

Talrak® Flexeal Elastic has a shelf life of 12 months if kept in dry store in original, unopened containers. If stored at high temperature and/or high humidity conditions the shelf life may be reduced.

Precautions
Health & Safety instructions

Talrak® Flexeal Elastic is non-toxic but alkaline in nature. Gloves and goggles should be worn. Any splashes to the skin or eyes should be washed off with clean water. In the event of prolonged irritation, seek medical advice. Use a dust mask while handling the powder.

Talrak Construction Chemicals Pvt. Ltd.

An ISO 9001:2015 Certified Company

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