



Lease Life  
to Man-Made  
Structures

# SUPERSHIELD

## FLEXI

### Two-Component Flexible Cementitious Waterproofing Membrane



#### PRODUCT DESCRIPTION

SUPERSHIELD FLEXI is a two-component, flexible cementitious waterproofing membrane consisting of a specialized liquid polymer dispersion and a cementitious powder. These components are mixed just prior to application. SUPERSHIELD FLEXI is suitable for areas of potential cracking. The initial and final bonding abilities of SUPERSHIELD FLEXI are excellent, making it suitable to be applied to horizontal as well as vertical surfaces. SUPERSHIELD FLEXI is an active barrier to carbon dioxide (CO<sub>2</sub>). It is durable, resistant to frost and UV after setting, and, at the same time, vapor permeable. It ensures that all crevices and fine cracks are sealed and waterproofed. SUPERSHIELD FLEXI is not a decorative material. SUPERSHIELD FLEXI is applied to surfaces such as concrete, masonry, and render which have to be sealed and protected against the influence of water and moisture. Owing to its elastic properties, it is used in zones posing cracking or deforming problems. SUPERSHIELD FLEXI is tested for use in drinking water reservoirs.

#### RECOMMENDED USES

- Waterproofing of concrete basins used for containing water
- Waterproofing bathrooms, showers, balconies, terraces, swimming pools etc. before laying ceramic tile finishes
- Waterproofing of construction joints and horizontal and vertical junctions
- Flexible smoothing layer for light-sectioned concrete structures, including those subjected to minor deformation when under load (e.g. precast panels)
- Protection of renders or concrete with cracks caused by shrinkage against the infiltration of water and aggressive atmospheric elements
- Protection against the penetration of carbon dioxide, of concrete pillars, beams, and roads railway viaducts

#### FEATURES AND BENEFITS

- Excellent water resistance
- High and low temperature flexibility and good tensile strength simultaneously
- Efflorescence, alkali, and chloride resistance
- Excellent elongation and is suitable for areas of potential cracking
- For concrete and masonry with excellent adhesion
- Environment-friendly and suitable for potable water storage tanks
- Active barrier against carbon dioxide (CO<sub>2</sub>)
- Resistant to UV rays
- Permeable to water vapor



## TECHNICAL DATA

General Characteristics		
PROPERTY	FLEXI A	FLEXI B
Color and Appearance	Grey Powder	White Liquid
Bulk Density	1.2 g/cm <sup>3</sup>	-
Density	-	1.1 g/cm <sup>3</sup>
Dry Solids Content	100%	56.5%
Performance Characteristics		
TEST NAME	TEST METHOD	PERFORMANCE
Permeability to CO <sub>2</sub>	EN 1062-6	>50
Permeability to water vapour	EN ISO 7783-1	Class I SD< 5m
Strength of Adhesion to indirect traction	EN 1542	≥ 0.8 MP a
Crack Bridging Ability at +23°C	EN 14891	≥ 0.5 mm
Crack Bridging Ability at -20°C	EN 14891	≥ 0.5 mm
Initial Adhesion	EN 14891	> 0.5 N/mm <sup>2</sup>
Adhesion after application of heat source	EN 14891	≥ 0.5 mm
Potable Water Test	D.Lgs. 31/2001	Complies with the parameters



## APPLICATION GUIDELINES

### Surface Preparation

Substrates to be applied with SUPERSHIELD FLEXI must be clean and free from laitance, loose particles, curing agent, dirt, oil, grease, asphalt, and paint. Cracks larger than 1 mm and honeycombs are to be routed out and sealed with Supershield Bondplast. Substrate must be thoroughly wet with water and allowed to dry on a damp surface prior to the application of SUPERSHIELD FLEXI.

**Caution :** No standing water or excessive water shall remain on the substrate that is to be applied with SUPERSHIELD FLEXI.

### Mixing

Before use, shake the liquid component well. Mix 25 kg of SUPERSHIELD FLEXI (Part A, dry component) with 12 kg of SUPERSHIELD FLEXI (Part B, liquid component) in a clean container for at least 3 minutes to a lump-free, homogeneous consistency. Use a mechanical mixer.

### Application

Do not apply at temperatures below +5 °C or to a frozen substrate. SUPERSHIELD FLEXI is applied with a brush, trowel, or suitable spray equipment in at least 2 coats with an overall thickness of 1-2 mm. Depending on the slurry consistency, a maximum of 1 mm (0.75 kg/m<sup>2</sup>–1 kg/m<sup>2</sup>) can be applied in one working cycle. Apply the second coat while the first coat is still damp on the surface. Allow approximately 2–4 hours between the coats; the second coat should not damage the first coat.

### Curing

No water curing is required for the SUPERSHIELD FLEXI coating. However, the coating must be protected against extreme weather conditions (e.g., rain, wind, frost, etc.) for a minimum of 18 hours.

Water ponding has to be carried out only after seven days of application.

### Climatic Conditions

Do not apply SUPERSHIELD FLEXI at temperatures below +5 °C (40 °F) or to a frozen substrate.

### Filling Of Water Retaining Structures

In accordance with standard water industry practice, particular care needs to be taken with the following:

- Clean all surfaces (ceiling, walls, slab, columns, stairs, etc.) with potable water (do not use high pressure).
- Remove all cleaning water.
- Filling can take place when the surface treatment has hardened sufficiently, usually not less than 14 days after application.

However, if earlier filling is specifically required, filling may be considered after a minimum of 7 days, provided the surface is thoroughly checked for hardness.

### HEALTH AND SAFETY

SUPERSHIELD FLEXI contains chemicals that may cause skin irritation. For personal precaution, protective gloves and goggles are recommended to be worn during the handling of this product. If the product gets in contact with the eyes, flush immediately with clean water and seek medical assistance if symptoms persist.



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## **STORAGE**

When stored in a dry place in unopened, undamaged original packaging, the shelf life is 12 months.

## **PACKAGING**

SUPERSHIELD FLEXI is packaged in a unit of 37 kg, which includes :

SUPERSHIELD FLEXI A (dry component) - 25 kg and  
SUPERSHIELD FLEXI B (liquid component) - 12 kg.

## **WARRANTY**

Supershield warrants that the products manufactured by it shall be free from material defects and comply with the specifications given in their respective technical data sheets. Should any of the products be proven defective, the liability of Supershield shall be limited to the replacement of the product, and Supershield shall in no case be liable otherwise or for incidental or consequential damages. No other warranties, express or implied, shall apply, including any warranty of merchantability or fitness for a particular purpose. The user shall determine the suitability of the product for his intended use and assume all risks and liabilities in connection therewith. Supershield reserves the right to change the properties of its products without notice.