

INNO- SEAL

FOX MULTIPLUS® FS540 PLUS

Bitumen-Rubber Based, One Component, Crack Bridging, Elastic Waterproofing Material

Description

FOX MULTIPLUS® FS540 PLUS is bitumen-rubber based, one-component, solvent-free, ready-to-use, elastic waterproofing material with crack bridging feature.

In compliance with TS EN 15814+A2:2015 / CB2-W2A-C2A standards.

CB2 : ≥ 2 mm Static Crack Bridging

W2A : 0,075 N/mm² Pressure Water Impermeability

C2A : 0,30 MN/m² Compressive Strength

Public Works Pos. No: 04.379/I06



Fields of Application

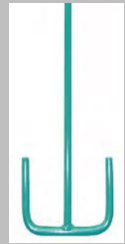
- Indoors and outdoors, vertical applications from the positive direction,
- Reinforced concrete surfaces that are exposed to ground and under continuous water,
- On surfaces such as foundation and curtain walls,
- On retaining walls,
- In basements and similar underground structures,
- Used to protect concrete against underground water and microorganisms.
- Used for bonding thermal insulation boards.

Advantages

- Applied easily and fast.
- Applied with a brush, trowel or spraying machine.
- Creates a seamless, permanent and waterproofing coating.
- Has crack bridging feature.
- Can be applied on slightly moist and dry surfaces.
- Long-lasting, resistant to water, weak acids and some salt solutions.
- Resistant to freeze-thaw cycle.
- Has high aging resistance and provides permanent waterproofing even after many years.
- Can be used in areas affected by movement and vibration.
- Solvent-free, water-based and environmentally friendly.

Technical Data

Structure of Material	Bitumen-Rubber emulsion
Color	Dark brown, black
Density	1,18 kg/lt
Solid Matter	%75
Application Surface Temperature	+5°C / +30°C
Service Temperature	-20°C / +80°C
Curing Time	24 hours
Contact Time with Water	48 hours
Fully Cured Time	28 days



The above values are given for +23°C and 50% relative humidity. High temperatures shorten the time, low temperatures extend the time



Product Standards

TEST NAME	METHOD	TS EN 15814+A2 TEST REQUIREMENTS	RESULTS
Static Crack Bridging +4°C	TS EN 15812	Class CB0: No value is required Class CB1: Crack Bridging ≥ 1 mm Dry film thickness ≥ 3 mm Class CB2: Crack Bridging ≥ 2 mm Dry film thickness ≥ 3 mm	CB2
Flexibility at Low Temperature 0°C	TS EN 15813	Cracks and deformation should not be seen	Suitable
Compressive Strength	TS EN 15815	Class C0 : No value is required Class C1 : 0,06 MN/m ² , Dry film thickness ≥ 3 mm Class C2A : 0,30 MN/m ² , Dry film thickness with mesh ≥ 4 mm Class C2B : 0,30 MN/m ² , Dry film thickness without mesh ≥ 4 mm	C2A
Rain Resistance	TS EN 15816	Class R0: No value is required Class R1: ≤ 24 hours, wet film thickness ≥ 3 mm Class R2: ≤ 8 hours, wet film thickness ≥ 3 mm Class R3: ≤ 4 hours, wet film thickness ≥ 3 mm	R0
Continuous Water Resistance	TS EN 15817	No color change in water There should be no change in the product according to EN 15817	Suitable
Dimensional Stability at High Temperature +70°C	TS EN 15818	Swelling and flow should not be observed	Suitable
Decrease in Layer Thickness	TS EN 15819	Decrease in layer thickness should be 50% after 28 days	Suitable
Pressure Water Impermeability (1 mm open crack)	TS EN 15820	Class W1 : \geq For 24 hours 0,0075 N/mm ² , Dry film thickness without mesh ≥ 3 mm Class W2A: \geq For 72 hours 0,075 N/mm ² , Dry film thickness with mesh ≥ 4 mm Class W2B: \geq For 72 hours 0,075 N/mm ² , Dry film thickness without mesh ≥ 4 mm	W2A
Fire Class	TS EN 13501-1	Euroclass	E

Application Procedure

Preparation of Substrate

The surface to be applied must be solid, free from any oil, grease, rust, paraffin, paint, bitumen residues that will prevent adhesion to the surface and all loose parts must be cleaned. Iron and wooden wedges on the surface should be removed and active water leaks, if any, should be blocked with **FOX PLUG FC340**. Existing gaps, uneven surfaces and corner edges (chamfer making at least 4 cm) should be done with **FOX MORTAR FC188 T (R4)** repair mortar. The surface must be primed before application of **FOX MULTIPLUS® FS540 PLUS**.

Mixing

It is sufficient to mix the **FOX MULTIPLUS® FS540 PLUS** with a low speed electric mixer (400 - 600 rpm/min) and the **T mixing tip indicated in the technical section** for 3 minutes.



Application

Priming

For the primer application, 1 kg of material is taken from the **FOX MULTIPLUS® FS540 PLUS** bucket and mixed with another 400-600 rpm/min electric mixer for 3 - 5 minutes by adding 5 liters of water in another mixing bowl. The prepared mixture is applied homogeneously on the surface with a brush as a single coat. The primer should be allowed to dry.

Waterproofing Application

After drying of the primer, **FOX MULTIPLUS® FS540 PLUS** is applied to the surface with the help of a brush in two coats and at the specified consumption. After making sure that the insulation coating is completely dry, foundation filling should be done. Before foundation filling is made, it must be covered with drainage plate and thermal insulation plates and it must be protected from shocks and tears that may occur during filling. Application should not be made while it is raining or potentially raining.

Cleaning of the Tools

Tools and equipment used after the application should be cleaned with water. **FOX MULTIPLUS® FS540 PLUS** can only be mechanically cleaned from the surface after hardening.

Coverage

Primer; 0,25 kg/m²

1st Coat; 1,50 kg/m²

2nd Coat; 1,25 kg/m²

Watch Points

- In application of **FOX MULTIPLUS® FS540 PLUS**, if the ambient and surface temperature is below +5°C or above +30°C, suitable temperatures should be expected.
- In exterior surface applications, the applied surface should be protected from sun, wind, rain or frost for the first 24 hours.
- Application should not be made while it is raining or when it is possible. Surfaces that are not fully cured should not be exposed to water.
- **FOX MULTIPLUS® FS540 PLUS** should be mixed with the mixing apparatus whose shape is specified in the technical specifications section.
- **FOX MULTIPLUS® FS540 PLUS** should be consumed within 1 hour at the latest from mixing.
- Working and reaction times of bitumen rubber based systems are affected by ambient and ground temperature and relative humidity in the air. At low temperatures, the reaction slows down, which increases pan (pot) life and working time. High temperatures accelerate the reaction and the times mentioned above shorten accordingly.
- To complete the curing of the material, the ambient and ground temperature should not fall below the minimum allowed value.

Package

30 kg plastic bucket

Shelf Life

When stored properly at room temperature, away from direct sunlight, between +5°C and +30°C, shelf life is 12 months from the date of production. It should be protected from frost. The opened material should be consumed as soon as possible.

Storage

Should be stored in its original package, in a cool and dry place protected from frost. In short-term storage, maximum 2 pallets should be placed on top of each other and shipment should be made with the first-in, first-out system. In long-term storage, pallets should not be placed on top of each other.

Safety Precautions

It is dangerous to approach the storage and application areas with fire. Storage and application areas should be ventilated.

During the application, work clothes, protective gloves, goggles, masks in accordance with the occupational health and safety rules should be used. During storage and application, the material should not be contacted with the skin and eyes, if contacted, should be washed immediately with plenty of water and soap, and if swallowed, should be sought medical attention immediately. Foods and drinks should not be taken into the application areas. The material should be stored out of the reach of children.

For detailed information, please refer to the Material Safety Data Sheet.



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Dop No:0039

FOX MULTIPLUS® FS540 PLUS

Bitumen-Rubber Based, One Component, Crack
Bridging, Elastic Waterproofing Material

Determination of Water Impermeability: Class W2A

Crack Bridging Ability: Class CB2

Compressive Resistance: Class C2A

Reaction to Fire: Class E

Water Resistance: Passing

Flexibility at Low Temperature: Passing

Dimensional Stability at High Temperature: Passing

Reduction in fully dried layer thickness ≤ %50 (MLV)

Dangerous materials: NPD

