

## INNO- SEAL FOX MULTIPLUS® 2K FS 542

### Cement and polymer Modified, Bitumen-Rubber Based, Two Component, Elastic Waterproofing Material

#### Description

FOX MULTIPLUS® 2K FS542 is cement and polymer modified, bitumen-rubber based, two component, solvent-free, elastic waterproofing material with crack bridging feature.

#### In compliance with TS EN 15814+A2 CB1-W1-C2A-R1 standards.

**CB1:** ≥1mm Static Crack Bridging

**W1 :** 0,0075 N/ mm<sup>2</sup> Pressure Water Impermeability

**C2A:** 0,30 MN/m<sup>2</sup> Compressive Strength

**R1 :** ≤ Rain Resistance After 24 Hours

**Public Works Pos. No:** 04.379/I07



#### Fields of Application

- Indoors and outdoors, horizontal and vertical applications from the positive direction,
- On reinforced concrete surfaces that remain under the ground and have constant contact with water,
- On surfaces such as foundation and curtain walls,
- On retaining walls,
- In flowerpot insulation,
- In the insulation of balconies and terraces against surface waters (with the condition of covering on it)
- In basement and similar underground structures,
- It is used to protect concrete against underground water and microorganisms.

#### Advantages

- Applied easily and fast.
- Applied with a brush or a trowel.
- Creates a seamless, permanent and moisture-proof 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.
- Creates a joint-free, permanent and permanent insulation layer.
- Can be used in horizontal and vertical applications without any problem.
- 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	Component A	Polymer modified Bitumen-Rubber
	Component B	Special cement mixture
Color		Dark brown, black
Mixture Density		1,08 kg/lit
Percentage of Total Solid Matter		%74
Static Crack Bridging	EN 15812	≥1 mm
Compressive Strength	EN 15815	0,30 MN/m <sup>2</sup>
Rain Resistance	EN 15816	≤24 hours
Pressure Water Impermeability	EN 15820	0,0075 N/mm <sup>2</sup>
Application Surface Temperature		+5°C / +30°C
Service Temperature		-20°C / +80°C
Curing Time		24 hours
Contact Time with Water		24 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	EN 15814 TEST REQUIREMENTS	RESULTS
Static Crack Bridging +4°C	EN 15812	Class CB0: No value is required Class CB1: Crack Bridging $\geq 1$ mm; Dry film thickness $\geq 3$ mm Class CB2: Crack Bridging $\geq 2$ mm; Dry film thickness $\geq 3$ mm	CB1
Flexibility at Low Temperature 0°C	EN 15813	Crack should not be seen	Suitable
Compressive Strength	EN 15815	Class C0: No value is required Class C1: 0,06 MN/m <sup>2</sup> , <sup>2</sup> , Dry film thickness $\geq 3$ mm Class C2A: 0,30 MN/m <sup>2</sup> , Dry film thickness with mesh $\geq 4$ mm Class C2B: 0,30 MN/m <sup>2</sup> , Dry film thickness without mesh	C2A
Rain Resistance	EN 15816	Class R0: No value is required Class R1: $\leq 24$ hours, wet film thickness $\geq 3$ mm Class R2: $\leq 8$ hours, wet film thickness $\geq 3$ mm Class R3: $\leq 4$ hours, wet film thickness $\geq 3$ mm	R1
Continuous Water Resistance	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	EN 15818	Collapse or flow should not be observed	Suitable
Decrease in Layer Thickness	EN 15819	Decrease in layer thickness should be 50% after 28 days	Suitable
Pressure Water Impermeability (1 mm open crack)	EN 15820	Class W1: $\geq$ For 24 hours 0,0075 N/mm <sup>2</sup> , Dry film thickness without mesh $\geq 3$ mm Class W2A: $\geq$ For 72 hours 0,075 N/mm <sup>2</sup> , Dry film thickness with mesh $\geq 4$ mm Class W2B: $\geq$ For 72 hours 0,075 N/mm <sup>2</sup> , Dry film thickness without mesh $\geq 4$ mm	W1
Fire Class	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® 2K FS542**.

### Mixing

While adding component B slowly on **FOX MULTIPLUS® 2K FS542** component A, it is mixed for about 3-5 minutes until the mixture becomes homogeneous with an electric mixer 400 - 600 rpm/min and **the mixing apparatus specified in the technical specifications section** and rest for 2 minutes. Then it is mixed again for 1 minute and made ready for application.

## Application

### Priming

For primer application, **FOX MULTIPLUS® 2K FS542** A component product is mixed with an electric mixer of 400 - 600 rpm/min for 3-5 minutes by adding (thinning) water at a rate of 1/5. The prepared mixture is applied homogeneously on the surface with a brush as a single coat. In horizontal applications, formation of ponds should not be allowed. The primer should be allowed to dry before applying waterproofing layer.



### Waterproofing Application

After drying of the primer, **FOX MULTIPLUS® 2K FS542** is applied to the surface with the help of a brush or a trowel 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® 2K FS542** can only be mechanically cleaned from the surface after hardening.

### Coverage

Primer; 0,25 kg/m<sup>2</sup>  
1<sup>st</sup> Coat; 1,50 kg/m<sup>2</sup>  
2<sup>nd</sup> Coat; 1,50 kg/m<sup>2</sup>

### Watch Points

- In application of **FOX MULTIPLUS® 2K FS542**, 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® 2K FS542** should be mixed with the mixing apparatus whose shape is specified in the technical specifications section.
- **FOX MULTIPLUS® 2K FS542** 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.
- Especially in extremely hot weather, consistency increase in the product may be happened due to rapid water loss. To prevent this, water can be added not exceeding 3% of the total amount of product. The product should be mixed homogeneously.
- To complete the curing of the material, the ambient and ground temperature should not fall below the minimum allowed value.

### Package

32 kg Set  
Component A; 24 kg Plastic bucket  
Component B; 8 kg Craft bag

### 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.



### Disclaimer

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Sartech Yapı Malzemeleri San. Tic. Ltd. Şti.  
Antalya Organized Industrial Zone Part 1, Street 7, No: 6  
Döşemealtı / ANTALYA / TURKEY

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**EN 15814+A2**

Dop No:0009

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Cement and polymer Modified, Bitumen-Rubber Based,  
Two Component, Elastic Waterproofing Material

Determination of Water Impermeability: Class W1

Crack Bridging Ability: Class CB1

Compressive Resistance: Class C2A

Resistance to Rain: R1

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  $\leq$  %50 (MLV)

Dangerous materials: NPD

