



# BITUMODE FLEX - Anti Root

## SBS MODIFIED BITUMEN ELASTOMERIC WATERPROOFING

### MEMBRANE REINFORCED WITH NON-WOVEN POLYESTER with PREVENTOL B2

#### What is Bitumode?

Produced by Bitumode Qatar Waterproofing factory, Bitumode is a line of polymer modified bitumen waterproofing membrane of the highest quality.

**Bitumode Flex Anti Root** membranes for the protection of planters and roof slabs under roof from damage by plant roots.

**Bitumode Flex Anti Root** is an SBS type modified bituminous membrane reinforced with 180gsm, 200 gsm and 250 gsm Polyester specially treated with root resistant properties according to CEN/TS 14416:2014. The special chemical treatment will not allow plant roots to pierce it and damage the waterproofing system.

#### Description

**Bitumode Flex Anti Root** SBS Modified Bitumen treated with Preventol B2 to precautionary protection of concrete surfaces against root penetration by unwanted vegetation will give the membrane full root resistant against roots penetration properties according to CEN/TS 14416:2014

#### Advantages

**Bitumode Flex Anti Root** has been designed with special regard to providing clients with an excellent and versatile product.

Advantages of **Bitumode Flex Anti Root** include:

- Easy to apply (by torch).
- Designed for roof gardens, planter, subways, land scope etc.
- Highly mechanical properties.
- Absolute impermeability to water.
- Flexibility at low temperature.
- Excellent high temperature performance.
- Excellent adhesion on any surface.
- High dimensional stability.
- Environmentally friendly.
- Resistant to soil chemicals and salts up to certain limits.

#### Quality Control

Bitumode Qatar Waterproofing Factory is ISO 9001:2015, ISO 45001:2018 and ISO 14001:2015 Certified. It applies a stringent quality control system utilizing its in-house laboratory. Occasional samples are analyzed by independent laboratories to ensure continued adherence to the highest standards (ASTM, EN etc.)

#### Product Range

Standard thickness available include 4mm. Upper surface finish choices include:

- Polyethylene Film (PE).

The nominal length of each roll is 10 meters, and the nominal width is one meter. Special specifications can be designed based on client's needs.



#### **Bitumode Qatar Waterproofing Factory**

New Industrial Zone, Doha, Qatar

Tel: (+974) 44 44 2717

Fax: (+974) 44 44 2818

P.O. Box 39199, Doha, Qatar

Email: [info@bitumodeqatar.com](mailto:info@bitumodeqatar.com)

Website: [www.bitumodeqatar.com](http://www.bitumodeqatar.com)



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## SBS MODIFIED BITUMEN ELASTOMERIC WATERPROOFING MEMBRANE REINFORCED WITH NON-WOVEN POLYESTER with PREVENTOL B2

TECHNICAL DATA		UNIT	RESULT			TOLER.	TEST METHOD	الخواص الفنية	
<b>Product</b>		<b>Roll</b>	<b>P-180</b>	<b>P-200</b>	<b>P-250</b>				
Roll Length		m	10			1%	EN 1848-1	الطول	
Roll Width		m	1			1%	EN 1848-1	العرض	
Thickness		mm	4.0			(± 5 %)	EN 1849-1	السّمك لتشطيب السطح بولي إيثيلين	
Cold Flexibility		°C	-10				EN 1109	المرونة عند درجات الحرارة المنخفضة	
Heat Resistance		°C	100				EN 1110	الثبات عند درجات الحرارة العالية	
Water impermeability at 100 Kpa		-	Absolutely impermeable				EN 1928:2000	مقاومة نفاذية الماء عند 100 كيلو بسكال	
Reinforcement		g/m <sup>2</sup>	NON-WOVEN POLYESTER					التسليح	
			<b>180</b>	<b>200</b>	<b>250</b>				
Tensile Strength	Long	N/5cm	800	900	1100	-20%	EN 12311-1 & 2	طولياً	مقاومة الشد القصوى
	Wide	N/5cm	650	700	850	-20%		عرضياً	
Elongation at break	Long	%	50	50	50	-15	EN 12311-1 & 2	طولياً	الاستطالة القصوى
	Wide	%	50	50	50	-15		عرضياً	
Tear Resistance	Long	N	550	650	750	-10%	ASTM D-5147	طولياً	مقاومة التمزق طبقاً للمواصفات الأمريكية
	Wide	N	450	550	600	-10%		عرضياً	
Joint Tensile Strength	Long	N	800	900	1100	-20%	EN 12317-1	طولياً	مقاومة الشد عند أماكن الركوب
	Wide	N	650	700	850	-20%		عرضياً	
Dimensional stability	Long	%	± 0.5	± 0.3	± 0.2		EN 1107-1	طولياً	ثبات الأبعاد
	Wide	%	± 0.5	± 0.3	± 0.2			عرضياً	
Resistance to Impact		mm	700	800	900	-15%	EN 12691	مقاومة الإختراق الديناميكي	
Root Resistance after 42 days		-	The roots did not penetrate the specimen tested			-	CEN/TS 14416:2014	المقاومة الجذر بعد 42 يوماً	

### NOTES:

- SBS Modified Bitumen treated with Preventol B2 to precautionary protection of concrete surfaces against root penetration by unwanted vegetation will give the membrane full root resistant against roots penetration properties according to CEN/TS 14416:2014.

### STORAGE:

- BITUMODE membranes should be stored vertically in well closed and ventilated places not subject to direct sunlight.
- Bitumode Membrane has a shelf life of 12 months from the date of production.

### APPLICATION INSTRUCTIONS:

- BITUMODE membranes are installed by propane torch welding method, loose laid or fully bonded to the substrate depending on system requirements.
- While unloading from truck the rolls shall by no means be allowed to fall or be thrown down from the truck.
- To avoid applying the membrane to corners with 90 °C angle, sand cement can't strip 5x5 cm should be executed at horizontal - vertical intersections.
- Surface to be waterproofed should be clean, dry, free from dust and smooth, in case of irregular surface a sand cement screed is recommended.
- Before laying BITUMODE membranes, surface should be primed with cold applied bituminous primer (BITUMODE Primer SB).
- The membrane is unrolled and placed in an aligned position.
- Each roll should overlap with the next by 10cm side laps and 15cm staggered end laps.
- Then, the membrane should be re-rolled about half of its length without changing its orientation.
- Using a propane gas torch, the membrane is un-rolled again slowly while applying the flame to the entire exposed lower face (For fully bonded system) -until the plastic cover film burns off and the bituminous mass starts melting, thus creating a heat weld between the membrane and the substrate.
- Then, torching of the seams takes place by heating the contact line at side and end laps by torch from above, pressing the upper membrane on to the lower one using a trowel, the torch has to be carefully used avoiding to keep the flame on the same point for too long.
- For sloping roofs start laying the membrane from the lower edge with longitudinal direction of rolls perpendicular to slope direction, side lap of next roll to be placed above the first one, etc

- Once the membrane has been applied to a horizontal and vertical wall, the membrane must be protected by a maximum of 24 hours' time to avoid any future mechanical damage.

- Kindly note that once we delivered the material you need to put our products in the shaded area which is properly ventilated area to avoid any mechanical damage,

- After successful installation, it is crucial to ensure that the bituminous membrane remains protected and not exposed or uncovered for a period exceeding seven days." If the bituminous membrane remains uncovered for an extended period, several consequences may arise:

- UV Degradation:** Exposure to sunlight can cause the bituminous membrane to degrade due to ultraviolet (UV) radiation. This can lead to a reduction in its flexibility, cracking, and loss of waterproofing properties.
- Weather Damage:** Unprotected from the elements, the membrane is susceptible to damage from rain, wind, and other weather conditions. This can result in water seepage and structural issues.
- Contamination and Debris:** Leaving the membrane uncovered can attract dust, dirt, and debris, which might hinder its effectiveness and impair adhesion during subsequent construction stages.
- Premature Aging:** The prolonged exposure to environmental factors can accelerate the aging process of the membrane, leading to premature failure and shortened service life.
- Voided Warranty:** Manufacturers often specify guidelines for proper installation and care. If the membrane remains uncovered beyond the recommended time frame, the warranty may become void,

For further details, please contact Bitumode technical department.