



# **BITUMODE - PAnti Root**

# **APP** MODIFIED BITUMEN PLASTOMERIC 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 -P Anti Root** membranes for the protection of planters and roof slabs under roof from damage by plant roots.

**Bitumode-P Anti root** is an APP 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-P Anti root** APP 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-P Anti Root** has been designed with special regard to providing clients with an excellent and versatile product.

Advantages of Bitumode-P 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.

### Bitumode Qatar Waterproofing Factory

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## 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 -P Anti Root**

### **APP** MODIFIED BITUMEN PLASTOMERIC WATERPROOFING MEMBRANE REINFORCED WITH NON-WOVEN POLYESTER with PREVENTOL B2

| TECHNICAL DATA                     |      | UNIT  | RESULT  |        |        | TOLER. | TEST<br>METHOD       | الخواص الفنية                             |                             |
|------------------------------------|------|-------|---|--------|--------|--------|----------------------|---|-----------------------------|
| Product                            |      | Roll  | P-180   | P -200 | P -250 |        |                      |   |                             |
| 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            | السمك لتشطيب السطح بولى<br>ايثلين         |                             |
| Cold Flexibility                   |      | °C    | -5  |        |        |        | EN 1109              | المرونة عند درجات الحرارة<br>المنخفضة     |                             |
| Heat Resistance                    |      | °C    | 120   |        |        |        | EN 1110              | الثبات عند درجات الحرارة العالية          |                             |
| Water impermeability at 100<br>Kpa |      | -     | Absolutely impermeable                          |        |        |        | EN 1928:2000         | مقاومة نفاذية الماء عند<br>100 كيلو بسكال |                             |
| Reinforcement                      |      | g/m²  | NON-WOVEN POLYESTER                             |        |        |        |                      | التسليح                                   |                             |
|                                    |      | 9/11  | 180 200 250                                     |        |        | -      |                      |   |                             |
| Tensile Strength                   | Long | N/5cm | 750   | 850    | 1050   | -20%   | EN 12311-1           | طولياً                                    | مقاومة الشد                 |
|                                    | Wide | N/5cm | 650   | 700    | 850    | -20%   |                      | عرضياً                                    | القصوى                      |
| Elongation at<br>break             | Long | %     | 50  | 50     | 50     | -15    | EN 12311-1           | طولياً                                    | الاستطالة                   |
|                                    | Wide | %     | 50  | 50     | 50     | -15    |                      | عرضيأ                                     | القصوى                      |
| Tear Resistance                    | Long | Ν     | 550   | 650    | 750    | -10%   | ASTM D-5147          | طولياً                                    | مقاومة التمزق               |
|                                    | Wide | Ν     | 450   | 550    | 600    | -10%   |                      | عرضيأ                                     | طبقا للمواصفات<br>الامريكية |
| Joint Tensile<br>Strength          | Long | N     | 750   | 850    | 1050   | -20%   | EN 12317-1           | طولياً                                    | مقاومة الشد عند             |
|                                    | Wide | N     | 650   | 700    | 850    | -20%   |                      | عرضيأ                                     | اماكن الركوب                |
| Dimensional                        | Long | %     | ± 0.5   | ± 0.3  | ± 0.2  |        | EN 1107-1            | طولياً                                    | ثبات الأبعاد                |
| stability                          | Wide | %     | ± 0.5   | ± 0.3  | ± 0.2  |        |                      | عرضياً                                    | ببات الابعاد                |
| Resistance to Impact               |      | mm    | 700   | 800    | 900    | -15%   | EN 12691             | مقاومة الاختراق الديناميكي                |                             |
| Root Resistance after 42 days      |      | -     | The roots did not penetrate the specimen tested |        |        | -      | CEN/TS<br>14416:2014 | الـمقـاومـة الـجذر<br>بـعد 42 يـومـا      |                             |

#### NOTES:

 APP 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 place 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 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).
- Membrane is unrolled and placed in aligned position.
- Each roll should overlap the next by 10cm side laps and 15cm staggered end laps.
  Then, membrane should be re-rolled about half of its length without changing its orientation.
- Using a propane gast orch, 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

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