

NBR – Modified Asphalt II

DESCRIPTION

Modified asphalt is an asphaltic cement which, during the industrialization process, acquires certain properties that meet specific waterproofing requirements, such as agglutinative attributes, flexibility and durability. At ambient temperature it has the characteristics of a solid but, being a thermoplastic material, its consistency and fluidity vary according to the heating temperature.

TECHNICAL CHARACTERISTICS OF THE PRODUCT

Characteristics	Unit	Type III
Softening point	°C	75 – 95
Penetration (25°C, 100g, 5 sec)	0.1 mm	20 – 35
Ductility (25°C, 5cm/mm)	cm	-
Flash Point	°C	Min. 235
Heat loss in mass (163°C, 5hs)	%	Max. 1
Solubility in trichloroethylene	% mass	Min. 99

REFERENCE NORMS

- NBR 9910:2017 – Modified asphalts for waterproofing without added polymers – performance characteristics
- NBR 9574:2008 – Execution of Waterproofing.

UTILIZATION

NBR II is used as raw material in the special adhesives industry, for noise suppressor (anti-noise) sealants, for caulking, and in adhesive for thermal insulation.

It is also used for in loco installation of waterproofing systems and for the adhesion of asphaltic membranes, as well as for grouting on concrete slab pavements.

For other uses and applications consult the **Technical Department (sac@viapol.com.br)**.

USAGE INSTRUCTIONS

Preparation of the surface

The surface should be previously washed, free of dust, sand, residues of oil, grease and release agent, among others.

On the moist horizontal surface execute the regularization with cement and sand mortar, ratio 1:3, observing a minimum trim of 1% in the direction of the water run-off points. Use kneading water composed of 1 volume of **Viafix** adhesive emulsion and 2 volumes of water for better adhesion to the substrate. This mortar should be given an even finish, with a minimum thickness of 2cm.

Apply one coat of asphaltic primer (**Viabit** or **Adeflex**) across the entire surface to be waterproofed and allow the primer to dry for the interval recommended by the product selected.

Preparation of the material (heating)

NBR II modified asphalt is applied after melting and requires special care during heating. Avoid temperatures over 200°C. NBR II asphalt should be heated between 160° to 190°C, using an electric or gas asphalt heater equipped with a thermometer for temperature control. Heating with a direct flame is not recommended.

Application of the product

In loco casting

Using a broad brush apply one coat of NBR II asphalt with a thickness of approximately 2mm and align the structuring material (fiberglass or polyester netting) on the coat applied. Continue application of NBR II asphalt until the predetermined consumption is reached.

On completion of the waterproofing await expiry of a 12 hour interval and then conduct the watertightness test for a minimum of 72 hours. Execute the mechanical protection according to norms and recommended technical specifications.

In non-passable areas the mechanical protection may be substituted by reflective paint (**Viaflex Banco (?)**, **Vedalage**).

Adhering the asphaltic membrane

Align the asphaltic membrane according to the realignment of the area, starting the adhesion from the drainpipes towards the more elevated levels.

Apply one coat of NBR II approximately 2mm thick, simultaneously unrolling the first asphaltic membrane over the asphalt surface, making sure to always leave an excess of asphalt just ahead of the spool as the membrane unwinds.

Apply strong pressure on the membrane just laid, from the middle towards the sides, in order to remove any bubbles/air pockets trapped between the membrane and the asphalt coated surface.

All the membranes must be applied with an overlap of 10cm. An excess of asphalt should also be applied on the overlaps to guarantee perfect seals between the membranes, resulting in a raised welt of asphalt along the seams.

Apply the membranes in the horizontal position, going up 10cm in the vertical position.

After application of the asphaltic membrane has been completed, conduct the watertightness test, filling the waterproofed areas with water and maintaining the level for a minimum of 72 hours.

Apply asphalt copiously over all seams as a reinforcing procedure to correct possible flaws in the adhesion of the membrane.

Application recommendations

The product should be installed by professionals familiar with all aspects of the procedure.

The product should not be applied during rainy weather or on moist substrate. Also avoid application on pre-existing residuals like paint, thermoplastics and others.

Due to high temperature application, use adequate clothing and PPE.

CONSUMPTION

Recommended minimum for joints	
Mechanical protection joint (1x1 cm)	0.150 kg/m/linear
Recommended minimum for <i>in loco</i> casting	
Underground areas	3.0 kg/m ²
Cold areas	3.0 kg/m ² (1.1 m ² /m ² - textile reinforce)
External concrete slabs	6.0 kg/m ² (2.2 m ² /m ² - textile reinforce)

Cold storage chambers & insulation	3.0 kg/m ² (1.1 m ² /m ² - textile reinforce)
Recommended minimum for adhering asphaltic membrane	
Single membrane	3.0 kg/m ²
Dual membrane	6.0 kg/m ²

PACKAGING

- 1.5 kg bloc – packet with 4 units.
- 15 kg bloc - Pallet com 40 blocs.
- 25 kg bag - Pallet com 20 bags.
- Drum with 180 kg.
- Heated tanker truck with minimum 18 tons.

VALIDITY / STORAGE

The product has a validity of 24 months from date of manufacture.
 The product should be stored in the original intact packaging, in a covered, dry ventilated location, far from sources of heat and out of the reach of children and domestic animals.
 Maximum storage temperature: 40°C.

SAFETY RECOMMENDATIONS

Prior to starting work consult the SSCP (Safety Information Sheet for Chemical Products) of the product.

During application, especially in closed/indoor areas, use adequate clothing and PPE: split leather gloves, boots, over-sleeves, safety eyewear, keeping the ambient ventilated until the product has dried completely.

In closed/indoor areas it is imperative to use forced ventilation and a semi-facial mask equipped with a filter adequate for organic vapors.

Clean tools and equipment with an organic solvent like xylol.

ENVIRONMENTAL PRECAUTIONS

Avoid spilling the product on the floor/soil. If this occurs implement containment, avoiding contamination of permanent conservation areas, water courses, storm drains, etc.
 Waste materials must be discarded in an appropriate location in accordance with regulations based on local environmental legislation in force

FIRST AID

In case of contact of hot product with the skin, cool the area immediately with cold water until the product cools and hardens, then cover the burnt region and consult a doctor.

In case of intoxication by inhalation, move the victim to a well ventilated location and seek medical assistance immediately.

In case of contact with the eyes, wash copiously with potable water for at least 15 minutes and seek medical assistance.

In the eventuality of irritation of the eyes, skin or ingestion of the product, consult a doctor stating the type of product involved

Note: The information contained in this datasheet is based on our best knowledge, and is provided for your help and guidance. We need to point out that the performance of our products depends on the preparation conditions of the surface and the storage and application of the product, factors not subject to our control. The consumption of the product depends on the application technique, the condition of the equipment used, and the surface to be coated. We do not, therefore, accept any responsibility of any nature regarding the consumption and performance of our products arising from inadequate storage or use of the product. For further clarification please consult our Technical Department.

Viapol reserves the right to alter the specifications and/or the information contained in this datasheet without prior notice..