

TORODIN ANTI-ROOT

Asphaltic waterproofing membrane

DESCRIPTION

Asphaltic membrane produced by the physical modification of asphalts with polymers, structured with continuous non-textile filaments of pre-stabilized polyester. Its composition includes an exclusive additive that resists perforation by the roots of plants.

TECHNICAL CHARACTERISTICS OF THE PRODUCT

Characteristics	Unit	Type III
Thickness	mm	3 & 4
Resistance to longitudinal & transversal traction (minimum)	N	400
Longitudinal and transversal elongation (minimum)	%	30
Water absorption (maximum)	%	1,5
Flexibility at low temperatures	°C	Classe A= -10 / Class B = -5
Resistance to impact	J-Joule	4.90
Drooping from heat (minimum)	°C	95
Dimensional stability (minimum)	%	1
Flexibility after aging	°C	Classe A = 0 / Class B = 5
Watertightness (minimum)	w.c.m	15
Tear resistance (minimum)	N	120

REFERENCE NORMS

- NBR 9952 – Asphaltic Membranes for Waterproofing (Applies to Type III – Class A & B)
- NBR 9575:2010 – Waterproofing – Systems and Projects;
- NBR 9574:2008 – Execution of Waterproofing.

UTILIZATION

Torodin Anti-root 3 mm: flower/plant boxes or troughs, diaphragm walls (curtains) in contact with the floor (external face).

Torodin Anti-root 4 mm: concrete slabs in garden areas, diaphragm walls (curtains) in contact with the floor (external face).

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

USAGE INSTRUCTIONS

Preparation of the Surface

The surface must be previously washed, free of dust, sand, residues of oil, grease, release agent, and stains of any type of material that may hinder adhesion of the product..

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

In the region of the drainpipes create a recess 1cm deep measuring 40x40cm, with beveled edges, so that the entire waterproofing will be level after laying of the reinforcements to be made at this location.

All corners and edges must be rounded off with a radius of approximately 5cm to 8cm.

In vertical masonry areas execute roughcast of cement and medium sand, ratio 1:3, followed by application of evened mortar of cement and medium sand, ratio 1:4, using kneading water composed of 1 volume of **Viafix** adhesive emulsion and 2 volumes of water.

Drainpipes and other outcrop pieces should be adequately fixed to allow execution of finishing.

Application of the Product

On the dry regularization apply one coat of **Viabit, Adeflex or Ecoprimer** primer with a roller or broad brush and allow to dry for a minimum of 6 hours.

Application with blowtorch flame:

Align the **Torodin Anti-root** membrane according to the realignment of the area, starting adhesion from the drainpipes towards more elevated levels.

With the aid of a LPG gas blowtorch flame, execute the total adhesion of the **Torodin Anti-root** membrane. The seams between lengths of membrane should have an overlap of 10cm and should be beveled to achieve a perfect seal.

Apply the membrane in the horizontal position, rising 10cm in the vertical position.

Align and adhere the membrane in the vertical, then descend and lay a 10cm overlap of the membrane adhered in the horizontal. In the vertical the membrane should be adhered 30cm higher than the finished floor.

The membrane must be adhered on the top of the flower box/trough, or on the continuous sides, rising 30cm above the level of the ground.

After the asphaltic membrane has been applied, conduct the watertightness test by filling the waterproofed location with water, maintaining the level for a minimum of 72 hours.

Separation Layer

This layer prevents the dilatation and contraction forces of the mechanical protection mortar from acting directly on the waterproofing.

Use plastic sheeting with a thickness of 24 micra as a separation layer.

MECHANICAL PROTECTION MORTAR

Horizontal

Execute the levelled mechanical protection mortar of cement and sand, ratio 1:4, with a minimum thickness of 3cm. This mortar should have perimeter seams 2cm in width, filled with bituminous mortar of cement, sand and **Vitkote** asphaltic emulsion, ratio 1:8:3.

Vertical

On the waterproofing, execute roughcast of cement and medium sand, ratio 1:3, followed by execution of evened mortar of cement and medium sand, ratio 1:4. Use kneading mortar composed of 1 volume of **Viafix** adhesive emulsion and 2 volumes of water. The mortar should be reinforced with plastic netting, rising 10cm above the asphaltic membrane.

After execution and cure of the mechanical protection, apply one coat of **Viabit Anti-root Paint**.

CONSUMPTION

Asphaltic membrane: 1.15 m² of area, considering overlaps and losses from cutouts and edges.

Primer: 0.40 l/m²

Viabit Anti-root Paint: 0.40 l/m²

FINISH OF MEMBRANE

PP – Polyethylene on both faces for adhesion with blowtorch.

Other types of finish: by consultation.

PACKAGING / STACKING

Spools 1m in width containing 10m length of membrane:

Pallet with 30 spools of 3mm membrane - 300 m².

Pallet with 25 spools of 4mm membrane - 250 m².

Pallets should be stacked as recommended to avoid collapse of the stack and damage to the products.

The product must be stacked vertically on pallets, avoiding contact of product with the floor.

Do not stack the product against walls or partitions.

Stack up to 2 pallets, with the second pallet resting on Madeirit for better distribution of the weight.

VALIDITY / STORAGE

5 years from date of manufacture.

Store the product in the vertical position, in the original intact packaging, in a covered, dry ventilated location, far from sources of heat.

SAFETY RECOMMENDATIONS

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

Due to high temperature application, use adequate clothing and PPE - (respirator, split leather gloves, boots, over-sleeves, leggings, apron and safety eyewear), keeping the area ventilated until the product has dried completely.

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

When a blowtorch is used for applying the waterproofing system in a closed/indoor area, we recommend that the gas cylinder be kept away from the work area for greater safety.

ENVIRONMENTAL PRECAUTIONS

Dispose of materials in an appropriate location in accordance with regulations based on local environmental legislation in force.

FIRST AID

Consult the SISCP of the products.

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 immediately seek medical assistance.

In case of contact with the eyes, wash copiously with potable water and seek medical assistance. In the eventuality of irritation of the eyes or skin, or ingestion of the product, consult a doctor, stating the type of product involved.

For further details consult the catalogues of the following products: **Viafix, Adeflex, Viabit, Ecoprimer, Vitkote, NBR II and NBR III.**

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..