

## SYNTHETIC HYDRO-REACTIVE MEMBRANES

## AMPHIBIA 3000



### **PRODUCT DESCRIPTION**

AMPHIBIA 3000 is a waterproof membrane in EPDM, reactive to contact with water, SELF-REPAIRING and SELF-SEALING.

This is composed of a co-extruded, multi-layer, polymer, continuous coat, with differentiated function for total water tightness of underground structures against water seepage.

It is composed of 3 layers with expansive capacity differentiated by the following features:

- TIGHT BARRIER, WATERTIGHT layer

- CORE, self-sealing and self-repairing super expansive safety layer, even in the event of a puncture - ACTIVE BARRIER, hydro-reactive layer with controlled expansion, prevents side water seepage and seals the overlaps.





PRODUCT APPLICATION

### ADVANTAGES

• Waterproofing and protection of concrete underground structures, such as residential and in

• Waterproofing and protection of concrete underground structures, such as residential and industrial buildings, shopping malls, public works etc. which require close and continuous contact between the waterproofing product and the structure (foundation walls)

It can also be used in other structures such as channels, tanks, purification systems, tunnels, etc...

Anti-damp protection for concrete structures built at ground level such as underfloor screeds

- Absolute impermeability with no side seepage of water
- Immediate mechanical protection, self-repairing also on accidental holes
- High resistance to hydraulic load
- High flexibility and capacity to bridge cracks
- Cold application with the possibility of testing tightness through simple inspections
- Self-sealing overlappings
- · Easy passage of connecting reinforcements with self-sealing holes
- Resistance to aggressive natural agents contained in the ground
- · Also usable in the presence of salt water
- Water tightness of the system even when water is not constantly present
- Easy and quick application, easily adapts to the different configurations of the supports
- Possibility of complete coupling with other Volteco waterproofing systems

## PREPARATION AND APPLICATION <u>APPLICATION GUIDE - INTRODUCTION</u>

Surfaces that are to be waterproofed can be damp, not necessarily clean but must not have great protrusions, cavities or continuous water flows that could compromise the continuity and sealing process of the overlaps.

Remove any stagnant water.

The sheets can be folded and cut in any direction.



SYNTHETIC HYDRO-REACTIVE MEMBRANES

# **AMPHIBIA 3000**



Where indicated, sheet overlaps must be sealed with the special BI MASTIC adhesive mastic (see relevant technical data sheet).

Wait 1-2 hours after applying AMPHIBIA 3000 before proceeding with sealing.

The formwork spacer holes need to be sealed with AKTI-VO 201 (see relevant data sheet) and, where required, with the relative plastic AMPHIBIA STOPPER.

#### Avoid cross overlaps.

#### Laying the product under slabs (pre-applied installation)

Use the AMPHIBIA 3000 GRIP version (see relative technical data sheet).

#### Laying the product on vertical surfaces

Create a connecting fillet at the foot of the wall with SPIDY15 (see the related technical data sheet), preventively cleaning the base and removing any loose cement portions.

Pre-cut the membrane to the size required to cover the wall.

Apply AMPHIBIA 3000 with the printed side facing the operator.

Overlap the joints between sheets by 5 cm and seal them with BI MASTIC.

Mechanically secure the top edge of the membrane to the wall using the AMPHIBIA PRESSURE LINE metal profile (Fig. 1).

Join AMPHIBIA 3000 to AMPHIBIA 3000 GRIP coming from the slab using the metal corner profile AMPHIBIA PRESSURE CORNER 90° fastened with nails (Fig. 2) after laying an AKTI-VO 201 edge or alternatively BI MASTIC in the underlying overlap between the two sheets.

Reinforce the corners and seal each bushing body with AKTI-VO 201, integrating pieces of membrane on the bodies.

Protect AMPHIBIA 3000 before backfilling (see "Warnings").



#### References available at www.volteco.com

WARNINGS - IMPORTANT NOTES Protect AMPHIBIA with 250 g/m<sup>2</sup> non-woven textile or with polystyrene/polyurethane insulating panel and backfill with soil, compacting in layers in order to obtain a uniform confinement of the membrane.

Every joint (expansion, rotation, translation) must be sealed with suitable profiles for VOLTECO joints. Exposure to heavy rainfall, if no suitable preventive cover has been made, can lead to the formation of gel on the surface, making it slippery.

AMPHIBIA is a professional product. VOLTECO always recommends checking the technical data sheet before use.

We recommend having installation carried out by qualified installers.

For special design situations, contact the Volteco Technical Service.

#### PACKAGING AND STORAGE

| -  | AMPHIBIA 3000 H. 0.90   |  |
|--|---|--|
| Roll dimensions  | m 0.9 X 10<br>(in 35.43 X 393.70)   |  |
| Equivalent area  | 9 m² (96,9 ft²)   |  |
| Roll weight  | 15 kg (33 lbs)  |  |
| Tolerance  | +/- 5%  |  |
| ACCESSORIES  | -   |  |
| Amphibia Pressure Line   | Steel straight profile<br>Length = $1.5 \text{ m} (59.06 \text{ in})$<br>Height = $4 \text{ cm} (1.57 \text{ in})$<br>Package = $10 \text{ pcs}$                                      |  |
| Amphibia Pressure Corner<br>Coated on surface at 90 °/270 °with<br>AMPHIBIA 3000 | Steel corner profile<br>Length = $1.5 \text{ m} (59.06 \text{ in})$<br>Height = $5 \text{ cm} (1.97 \text{ in}) \times 10 \text{ cm} (3.93 \text{ in})$<br>Package = $10 \text{ pcs}$ |  |





# **AMPHIBIA 3000**



### ACCESSORIES

| Amphibia Safety Tape | Adhesive tape to protect overlaps<br>Package = 25 m roll (984.25 in)   |
|----------------------|--|
| Bi Mastic            | High performance deformable adhesive mastic<br>Package = 10 unipack box  |
| Amphibia Stopper     | Protective stopper to close formwork holes<br>Package = bag 50 pcs   |
| T<br>F<br>[          | The products must be stored in a dry place protected from sun and<br>PREFERABLY HORIZONTALLY.<br>DO NOT STACK THE PALLETS. |

# PHYSICAL AND TECHNICAL SPECIFICATIONS

| Specification                                       | Standards  | Values  |  |
|---|--|---|--|
| Visible defects                                     | UNI EN 1850-2  | No visible defect                                     |  |
| Mass per unit area                                  | UNI EN 1849-2  | $1.6 \pm 0.2 \text{ kg/m}^2$                          |  |
| Thickness   | UNI EN 1849-2  | 1.4 ± 0.2 mm  |  |
| Water tightness                                     | UNI EN 1928 B (700 KPa/24 hrs)   | No passage  |  |
| Impact resistance                                   | UNI EN 12691   | Method A: 450 mm<br>Method B: 2000 mm                 |  |
| Resistance to chemical agents and water tightness   | UNI EN 1847 (CaOH <sub>2</sub> - 28 days)<br>UNI EN 1928 B   | Test Passed   |  |
| Resistance to artificial ageing and water tightness | UNI EN 1296 (12 weeks 70 °C)<br>UNI EN 1928 B  | Test Passed   |  |
| Transverse and longitudinal resistance to tearing   | UNI EN 12310-1   | Longitudinal: >250 N<br>Transversal: >200 N           |  |
| Tensile strength                                    | UNI EN 12311-2 (A method)  | Longitudinal: >300 N/50mm<br>Transversal: >250 N/50mm |  |
| Elongation at breaking point                        | UNI EN 12311-2 (A method)  | Longitudinal: > 500%<br>Transversal: > 500%           |  |
| Water vapour permeability                           | UNI EN 1931  | Sd: 412 m<br>Flow: 1.12 E-9 (kg/m²)*s                 |  |
| Resistance to static load                           | UNI EN 12730 (method B/24 h)   | 20 kg   |  |
| Shear resistance of joints with BI MASTIC           | UNI EN 12317-2   | 234 N   |  |
| Fire resistance                                     | UNI EN 13501-2   | Class E   |  |
| SAFETY  | Refer to the related Safety Data Sheet.  |   |  |
| COPYRIGHT   | © Copyright Volteco S.p.A All rights reserved.<br>Information, images and text found in this document are exclusive property of Volteco S.p.A.<br>They may change anytime without prior notice.<br>Updated versions of this and other documentation (specification, brochure, other) are on<br>www.volteco.com.<br>In case of translation text may contain technical and linguistic inaccuracies.  |   |  |
| LEGAL NOTES   | Note for buyer/installer:<br>This document prepared by Volteco S.p.A. is provided as an aid and guideline for the buyer/installer.<br>This does not take into consideration the details of each single operational context, for which Volteco<br>S.p.A. will not be held liable.<br>This does not change and does not extend the obligations of Volteco S.p.A.<br>It may vary and the installer is therefore required to update his/her information prior to each application<br>by referring to www.volteco.com.<br>The before-after sales technical/trade information of the sales network have the same validity as this<br>document. |   |  |

### ANNEXES



SYNTHETIC HYDRO-REACTIVE MEMBRANES

AMPHIBIA 3000





OM BOULDER





0

FIG. 2

