



Description

Delta Amphibia is a 1.3mm BBA Approved pre- and post- applied fully bonded waterproofing membrane with reactive core, this hydro-reactive, self-healing, self-sealing multi-layer waterproofing system can be applied on vertical and horizontal areas of new construction.

A Type A (Barrier Protection) co-extruded multi-layer waterproofing membrane.

This robust, tough but flexible waterproofing system is ideal for all construction applications. Uniquely composed of three layers of unequalled features such as Tight Barrier (watertight layer), Core (self-sealing and self-repairing expansive safety layer, even in the event of puncture), and Active Barrier (a hydro-reactive layer with controlled expansion, which prevents lateral water seepage and seals at overlaps).

Delta Amphibia 1.3mm offers differentiated function for total water tightness of underground structures against water seepage. Moreover, it is provided with a calibrated non-woven fabric on the inner face/side in contact with fresh concrete which allows the mechanical adhesion of the membrane to the structure. Suitable for horizontal or vertical applications and for all ground floor and basement construction including lift pits, raft foundations, open basement excavation, sealing on internal formworks, construction joints, sheet piles, micropiles and service penetrations. Delta Amphibia 1.3mm is available in two widths 0.9m (900mm) or 1.8m (1800mm) for ease of use depending on area for detailing.

Features

- BBA Approved
- High performance external waterproofing membrane
- Uniquely self-sealing, self-healing and self-repairing
- Absolute impermeability with no lateral seepage of water
- Immediate mechanical protection
- High flexibility and capacity to bridge cracks
- Total adhesion to reinforced concrete structures

Product Details

DMS 1035 - 0.9m x 10m
DMS 1036 - 1.8m x 20m

Technical Data

Delta Amphibia 1.3mm		
Specification	1.8m x 20m	0.9m x 10m
Roll Dimensions	1.8m x 20m (70.87 x 787.40in)	0.9m x 10m (35.43 x 393.70in)
Equivalent Area	36 ² m (387.5 ft ²)	9 m ² (96.9 ft ²)
Roll Weight	47kg (104lbs)	12kg (26lbs)
Tolerance	+/- 5%	+/- 5%



PRODUCT DATA SHEET

Delta Amphibia 1.3mm

Specification

- BS 8102:2022 Protection of below ground structures against water ingress. Code of practice.
- NBS J40 / 130 – Flexible Sheet Tanking/Waterproofing
- NBS J20/110 Tanking

Fields of Application

- Type A Waterproofing solution for below ground and earth-retained structures
- Delta Amphibia may be used in all applications, where reinforced concrete structures require protection against groundwater and contaminants
- Used for water pressure-tight surface sealing of WU concrete structures
- External barrier, for the waterproofing and protection of floor slabs and exterior concrete wall surfaces against soil moisture
- Foundations
- Basements
- Tunnels
- Retaining Walls

Associated Products

- Delta Amphibia WT Construction/Expansion/Panel
- Delta Amphibia Safety Tape
- Delta Amphibia Stoppers
- Delta Amphibia Pressure Corners/Line
- Delta Amphibia Lap Seal
- Delta Amphibia AKTI-VO 201
- Delta Amphibia BI Mastic

Surface Preparation and Application

Product	Definition	Type of Protection	Fields of Application
Delta Amphibia Safety Tape	Adhesive tape to protect overlaps	Acrylic Adhesive + Film	In foundation beds with Delta Amphibia application before concreting and in post application on walls.
Delta Amphibia Safety Tape BT	Double-sided butyl tape to protect overlaps	Butyl adhesive on both sides + film	In combination with Delta Amphibia Lap Seal in case of Delta Amphibia membrane used against the entry of gases.
Delta Amphibia Grip Tape	Double-sided butyl tape self-fastening to concrete to join overlaps	Butyl adhesive + film with TNT	As an alternative to Delta Amphibia Safety Tape for Delta Amphibia applications before concreting to achieve a higher continuity of adhesion to concrete in case of close overlaps or where specifically required (see national/ local regulations) On walls with Delta Amphibia pre-applied in formwork, as an alternative or in combination with staples before concreting
Delta Amphibia Lap Seal	Double-sided Butyl Tape for Overlaps Gastightness	Butyl Adhesive + Film	To complete Delta Amphibia in case of use against the entry gases, in particular radon and methane, in combination with Delta Amphibia Safety Tape BT (see double taping fig.6)
Delta Amphibia Bi-Mastic (See related Technical Data Sheet)	High Performance Deformable Adhesive Mastic	Modified Silanol Adhesive	On walls with Delta Amphibia application against retaining wall structures and wherever a tenacious adhesion of the overlaps is required before concreting. On walls with Delta Amphibia applied inside formwork, as an alternative or in combination with staples before concreting

Packaging

Supplied in 0.9m x 10m and 1.8m x 20m rolls

Durability

Subject to normal conditions, Delta Amphibia will provide an effective barrier to the transmission of moisture, water, and water vapour for the life cycle of the structure.

Guarantees

Delta Membrane Systems Limited offer a 20-year Product Guarantee on membranes, seals, and fixings when the Delta Amphibia waterproofing solution has been installed by a Delta Registered Installer. A list of experienced Delta Registered Installers is available from Delta's offices.

Storage

- Store safely and keep out of reach of children
- Always store and transport in a secure position
- Store in a dry location protected from direct sun light and humidity

Installation

Please refer to Delta's Installation Guides. Installation Guides can be found at www.deltamembranes.com/technical/delta-installation-guides/. We have a number of "How to" subject related video guides available on your Youtube Channel and Website. Please visit www.deltamembranes.com/technical-categories/the-video-suite/ Adequate training is required before industrial or professional use.

PRODUCT DATA SHEET

Delta Amphibia 1.3mm

Physical and Technical Specifications

Specification	Standards	Values
Visible defects	UNI EN 1850-2	No visible defect
Straightness	UNI EN 1848-2	Left side 10mm Right side -30mm
Mass per unit area	UNI EN 1849-2	1.3 kg/m ² ± 10%
Thickness	UNI EN 1849-2	1.3 mm ± 10%
Water tightness	UNI EN 1928 B (700 KPa/24 hrs)	No passage
Impact resistance	UNI EN 12691	Method A: 250 mm Method B: 2000 mm
Resistance to chemical agents and water tightness	UNI EN 1847 (CaOH ₂ - 28 days) UNI EN 1928 B	Test Passed
Resistance to artificial ageing and water tightness	UNI EN 1296 (12 weeks 70°C) UNI EN 1928 B	Test Passed
Transverse and longitudinal resistance to tearing	UNI EN 12310-1	Longitudinal: >400 N Transversal: >400 N
Tensile strength	UNI EN 12311-2 (A method)	Longitudinal: >300 N/50mm Transversal: >250 N/50mm
Elongation at breaking point	UNI EN 12311-2 (A method)	Longitudinal: > 250% Transversal: > 250%
Water vapour permeability	UNI EN 1931	Sd: 156.5 m Flow: 5.766 E-9 (kg/m ²)·s
Resistance to static load	UNI EN 12730 (method B/24 h)	20 kg
Shear resistance of joints with AMPHIBIA BI MASTIC	UNI EN 12317-2	233 N
Fire resistance	UNI EN 13501-2	Class E

Additional Specifications (Not requested for CE Marking)

Resistance to lateral water migration	DIN EN 12390-8	700 kPa
Resistance to hydrostatic pressure	ASTM D 5385	700 kPa
Overlap resistance to hydrostatic pressure	ASTM D 5385	700 kPa
Radon diffusion coefficient	ISO/TS 11665-13	Membrane: 4.1 E-11 m ² /s Overlap: 2.9 E-11 m ² /s
Methane transmission rate	ISO 15105-1	Membrane: 428 mL/m ² x d Overlap: 492 mL/m ² x d
Resistance to root penetration	EN 14416	Test Passed

The data reported are obtained in the laboratory at +20°C and 60% R.H. (relative humidity)

Safety

Adequate training is required before industrial or professional use. Always follow the instructions provided in the material safety data sheet and take the precaution described there. Wear appropriate Protective Personal Equipment (PPE) when applying and using the material. Observe all governmental, state, and local safety regulations when processing the material. Protect Delta Amphibia 1.3mm with 250 g/m² non-woven textile or with polystyrene/polyurethane insulating panel and backfill with soil, compacting the layers in order to obtain a uniform confinement of the membrane. Every joint (expansion, rotation, translation) must be sealed with suitable profiles for joints. Surfaces must be prepared prior to application and free from contamination such as adhesives, coatings, curing compounds, dust, grease, oils, and any other material that could compromise adhesion. Surfaces that are to be waterproofed can be damp 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. Sheets can be folded and cut in any direction. Delta Amphibia side stamped with "Concrete side" is always installed in contact with the concrete structure that needs to be waterproofed. Formwork spacer holes need to be sealed with the relevant plastic Delta Amphibia Stopper in different shape according to their diameter:

- In case of tubes diam. 20-22 make a Delta Amphibia AKTI-VO 201 bead on the stopper fins near the disc.
- In case of tubes diam. 24 make two adjacent Delta Amphibia AKTI-VO 201 beads on the stopper fins near the disc.
- In case of metal spacers on traditional wooden formworks, use Delta Amphibia Strip. To prevent the overlaps of sheets from opening during subsequent processes (e.g. installing reinforcement and concrete casting), they must be sealed with suitable protection.

Other Information

All data and information contained in these Product/Technical Data Sheets is up-to-date and correct as at the date of issue. The information given is suggested as guidance and should only be used for evaluating your specific application. Delta Membrane Systems Limited cannot control or anticipate the conditions under which this product may be used, each user should review the information in specific context of the planned use. The information contained in these Product/Technical Data Sheets should not be considered a warranty, expressed, or implied, including but not limited to a warranty of merchantability or fitness for a particular purpose. In no event shall Delta Membrane Systems Limited be liable for any incidental or consequential damages resulting from the use, misuse, or inability to use the product. This exclusion applies regardless of whether such damages are sought based on breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory. When in doubt, contact Delta's Technical Team on 01992 523 523.