



a.b.e.[®] Construction Chemicals **Index Armodillo** Polyester Antiroot

MULTI-FUNCTIONAL POLYMER MODIFIED BITUMEN WATERPROOFING MEMBRANE WITH A BUILT IN DRAINAGE BOARD ADDED MECHANICAL PROTECTION AND ANTIROOT IDEAL FOR WATERPROOFING BELOW GROUND STRUCTURES & ROOF GARDENS

DESCRIPTION

Index Armodillo is a bitumen waterproofing membrane with integrated functions for waterproofing, drainage, & mechanical protection in a single product. **Index Armodillo** is manufactured from distilled bitumen specifically for industrial use. The membrane is reinforced with a puncture and tear resistant non-woven polyester fabric with high elongation. The upper dimpled face of the membrane offers protection for the membrane from perforation when it is being buried. The dimples ensure a drainage network, replacing the need for an HDPE membrane, which ensures water is drained efficiently away to perimeter drains, preventing water pooling. Dimples if torched, transform into a liquid adhesive making it possible to bond insulating panels, and non-woven fabrics such as geotextiles for filtration and other materials onto **Index Armodillo**.

Index Armodillo is designed to ensure that the applicator does not get his hands burnt, when bonding onto foundation walls. When laying a smooth membrane on a vertical surface, the installer can burn his hands while holding the roll, but the dimples on **Index Armodillo** keep the installer's hands away from the torch making it easier and safer. The insulating product can be applied by torching without using bitumen and nails. **Index Armodillo** is manufactured with a 70mm indented side strip on the membrane allowing welding of the side overlaps. The lower face is covered by Flamina, which is a plastic film that indicates the correct application of the membrane onto the substrate to ensure that over burning does not occur.

APPLICATION FIELDS

Index Armodillo can be used on both flat and vertical areas of a building, either alone or with other membranes as a waterproofing protective and drainage layer. The special configuration of the upper face, similar to the plates of an Armadillo's shell, from where the name of the membrane comes, protects the membrane while it is being laid underground. Below you will find the main fields of use for **Index Armodillo** for which four stratigraphic systems have been planned:

- DRY-OUT: for waterproofing and draining foundation walls.
- DRY-IN: for the hygienic refurbishment of damp cellars.

METHOD OF USE AND PRECAUTIONS

Index Armodillo is normally heat fused to the foundation walls, but it can also be nailed down although this will make the membrane more prone to tearing when it is covered with soil and by settlement of the structure.

ADVANTAGES

- A waterproofing, protective and draining layer in one multifunctional product.
- The protective plates are liquid adhesive when torched so, no additional cost for adhesives. You can bond other materials that won't move during refilling.
- Multifunctional waterproofing and draining membrane: foundation walls, cellars, roof gardens, underfloor.
- The insulated rustications protect the hands of the installer from burns.
- It resists higher puncturing compared to HDPE products

APPLICATION FIELDS

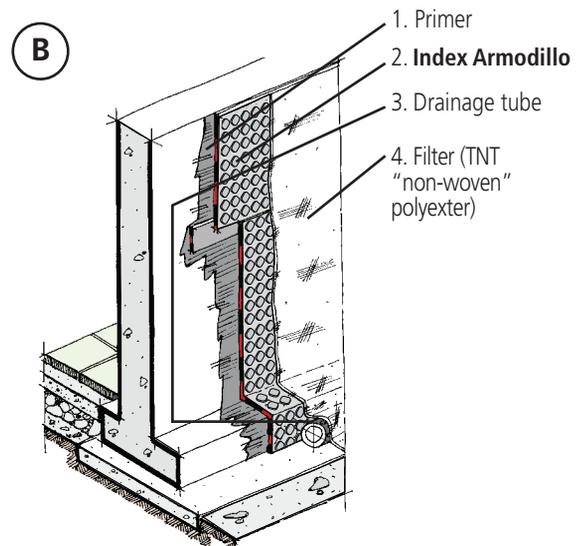
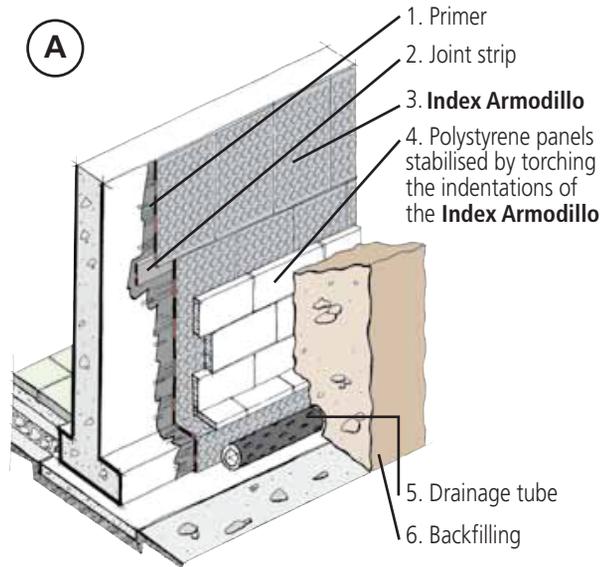
"Dry-out" system

This is the **Index** system for waterproofing and draining the outer face of underground walls. It consists of the combination of the following products:

- **Index Armodillo** polyester
- Expanded polystyrene or filter/p panels

The first is an indentated membrane to be fully bonded to the wall to be covered, with the rusticated face outwards. The sheets should be overlapped and bonded laterally along the overlaps of the membrane, while joints at the head of the sheets will be sealed by bonding the head of the membrane to a 14cm strip of reinforced polyester membrane which has previously been bonded along the wall. The difficult parts and joints will be realised with a smooth membrane such as **abe® unigum** or **Index Fidia P**. The covering will be protected with polystyrene panels fixed to the indentations of the **Index Armodillo**. You do not need to use nails or adhesives to fix the panels but simply torch the indentations on the **Index Armodillo** membrane and then press the polystyrene panel (A) onto the membrane. In this way, in a single operation a drainage air space is produced as well as an effective protective layer capable of resisting being laid underground and the tangential stress of the earth settling. Filtering non-woven fabric (Filtro) can be used instead of the polystyrene panels and this material captures the smallest particles of the earth which could block the drainage channels (B).

Filtro can easily and quickly be fixed to the membrane by torching the armour plates and pressing the fabric onto the membrane. **Index Armodillo polyester** can also be used as a simple rusticated drainage sheet if it is installed with the indentations towards the surfaces to be covered, with the advantage that it can be fixed to the wall by torching the armour plates and will not move when it is covered with earth, as would happen with a normal plastic sheet nailed at the head. The overlaps can also be bonded and the head joints can be covered with a strip of membrane to form a continuous waterproof layer.



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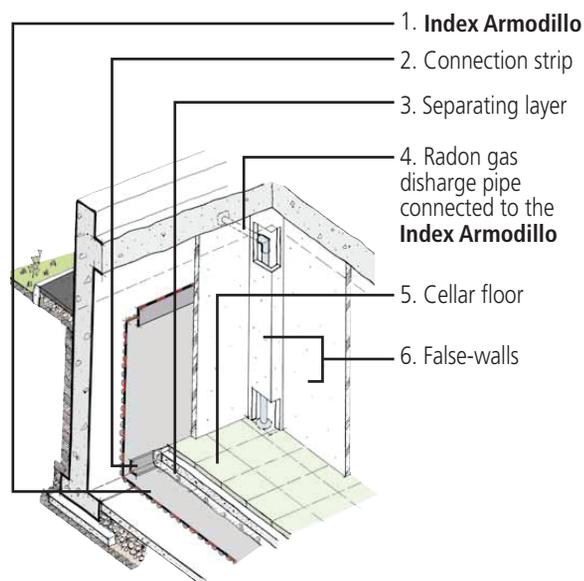
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“Dry-in” system

This is the INDEX system for refurbishing damp cellars from the inside when it is impossible to work from the outside.

This system consists in the installation of **Index Armodillo** with the rusticated face facing towards the surfaces to be covered. Torch the plates of the armoured face and fix the sheets on the walls, dry lay the membrane on the floor dry. The side overlaps on the membrane should be torch bonded, while the head of the sheets should touch but not overlap and then be sealed with 14cm strips of reinforced polyester membrane bonded over the joints. The difficult parts and joints of pipes should be made with a smooth membrane such as **abe® unigum** or **Index Fidia P**.

Index Armodillo is impermeable to water and gas, and as can be seen in the picture, a draining air space is formed between the damp surfaces and the membrane through which the humidity and any gas emissions from the ground, even radioactive ones, can drain. Then the waterproofing layer can be covered with traditional or prefabricated construction materials, both on the wall and floor.



TECHNICAL CHARACTERISTICS

	Standard	T	Index Armodillo polyester
Reinforcement			“Non-woven” Spunbond polyester
Weight	EN 1849-1	±10%	5.0 kg/m ²
Roll size	EN 1848-1	≥	1x7.5 m
Watertightness	EN 1928 – B	≥	60 kPa
• after ageing	EN 1926-1928	≥	60 kPa
Shear resistance L/T	EN 12317-1	-20%	500/300 N/50mm
Maximum tensile force L/T	EN 12311-1	-20%	600/400 N/50mm
Elongation L/T	EN 12311-1	-15% V.A.	35/40%
Resistance to impact	EN 12691-A	1 250 mm	
Resistance to static loading	EN 12730-A		25 kg
Resistance to tearing (nail shank) L/T	EN 12310-1	-30%	170/170 N
Flexibility to low temperature	EN 1109	≤	NPD
Reaction to fire Euroclass	EN 13501-1		E

Thermal specifications

Thermal conductivity		0.2 W/mK
Heat capacity		6.50 KJ/K

Compliant with EN 13707 in terms of the resistance factor to steam penetration for reinforced polymer-bitumen membranes, the value of $\mu = 20\ 000$ may be considered, unless declared otherwise.



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IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot - because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied - accept any liability either directly or indirectly arising from the use of **a.b.e.®** products, whether or not in accordance with any advice, specification, recommendation or information given by the company.

FURTHER INFORMATION

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements. **a.b.e.® Construction Chemicals** has a wealth of technical and practical experience built up over years in the company's pursuit of excellence in building and construction technology.



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