DonProof L

High-performance, pre-applied, loose laid PVC membrane for below-grade waterproofing

DESCRIPTION

DonProof L is a high quality, homogenous, flexible PVC waterproofing membrane manufactured from plasticised PVC. It features a light-coloured signal layer on the top surface and is specifically developed for use in underground structures and non-exposed roof applications.

The membrane is installed loose-laid and welded with hot air to create a watertight, continuous system.

APPLICATIONS

DonProof L is designed for the waterproofing of a wide range of elements including:

- Tunnels.
- Foundations and retaining walls.
- Vertical and horizontal sealing of below-grade structures.
- Terraces.
- Covered or protected roof applications.

ADVANTAGES

- Excellent mechanical properties.
- High resistance to micro-organisms and root penetration.
- The light-coloured top layer allows for quick and reliable visual inspection during installation.
- Flexible in cold temperatures.
- Strong joints achieved through hot air welding.
- Recyclable, low carbon footprint.
- No open flame welding, enhancing safety during installation.

STANDARDS

DonProof L complies with EN 13967 and EN 13491, as per the technical properties table.

METHOD OF USE

DonProof L must be installed by experienced and qualified personnel.

SURFACE PREPARATION

Ensure all substrates are solid, clean, and free of debris, sharp edges, or voids. The blinding concrete should be finished with a steel trowel to achieve a smooth surface, and all corners and edges shall be rounded to a minimum radius of 50mm.

Any protrusions on the cementitious substrate shall be removed through chiseling and grinding. Nails, wires, loose stones, and other obstructions shall be cleared, and all voids, service openings, and holes shall be filled to match the surrounding substrate level.

SEPARATION/PROTECTION LAYERS BELOW THE MEMBRANE

A cushion layer of geotextile membrane, weighing no less than 350g/m², shall be installed directly over the blinding concrete as part of the preparation process.

Prior to placement, the blinding surface should be thoroughly cleaned to ensure it is free from any loose materials, sharp projections, or debris that could damage the membrane.

The geotextile will be laid loosely across the blinding concrete and positioned to provide a minimum overlap of 100mm between adjacent sheets, ensuring full coverage of the underlying blinding concrete.

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APPLICATION

The layout and direction of membrane installation should take into account the irregular shape and geometry of the slabs to ensure proper coverage and continuity.

The PVC membrane shall be cut to the required lengths, maintaining a minimum overlap of 80 mm between sheets to ensure watertight integrity. Once cut, the membrane should be unrolled and positioned carefully, allowing adequate overlap at edges and ends so that it can properly connect with vertical waterproofing.

Where applicable, the membrane shall be welded to the pile head PVC waterstop by at least 30 – 40 mm, ensuring that 10 – 15 mm of the waterbar remains exposed above the weld.

Overlap seams between membrane sheets must be no less than 80 mm, with the final welded seam width exceeding 30 mm for single seam welds. Prior to welding, all membrane surfaces must be thoroughly cleaned and confirmed to be dry, free from dust, oil, grease, or any contaminants that could compromise the bond.

Once welding is complete, all joints must be inspected and tested to confirm their integrity and proper adhesion.

REMARKS

DonProof L is not compatible with bitumen and must be protected against UV.

PACKAGING

Thickness	1.5 mm	2.0 mm	2.5 mm	3.0 mm
Width	2.2 m + 1%			
Length	20 m			

STORAGE

DonProof L has a shelf life of 18 months from the date of manufacturer if stored in their original packaging at temperatures between 5°C and 30°C, and kept dry and protected from direct sunlight, snow, ice, water, heat or heat sources.

Do not stack any sharp items or additional pallets on top the DonProof L membrane during transport and storage.

If these conditions are exceeded, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

DonProof L is not directly associated with any known hazard during normal use.

For further information, refer to the Material Safety Data Sheet.

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TECHNICAL PROPERTIES:	DONPROOF L1.5 mm	DONPROOF L2.0 mm	DONPROOF L2.5 mm	DONPROOF L3.0 mm
Thickness: EN 1849-2	1.5 ± 5% mm	2.00 ± 5% mm	2.50 ± 5% mm	3.00 ± 5% mm
Signal layer thickness: EN 1849-2	0.2 mm			
Visible defects: EN 1850-2	No visible defects (Pass)			
Dimensional stability: EN 1107-2	≤ 2%			
Resistance to static load: EN 12730	No leak at 20 kg (Pass)			
Tensile strength (L/T): EN 12311-2 Method B dumbbell	15 / 14 N/mm²	17 / 16 N/mm²	16 / 16 N/mm²	16 / 16 N/mm²
Elongation at break (L/T): EN 12311-2 Method B dumbbell	250 / 250%	300 / 300%	300 / 300%	300 / 300%
Tear resistance (nail shake): EN 12310-1	250 N	360 N	360 N	500 N
Joint shear resistance: EN 12317-2	800 N/50mm			
Joint peel resistance: EN 12316-2	180 N/50mm	200 N/50mm	200 N/50mm	250 N/50mm
Resistance to impact: EN 12691	800 mm	1000 mm	1000 mm	1000 mm
Foldability at low temperature: EN 495-5	-25°C	-25°C	-25°C	-30°C
Water permeability/tightness: EN 1296 EN 1928 (7 bars)	Waterproof			
Water tightness under water pressure: DIN 16726 (10 bar pressure for 10 hours)	Impermeable			
Water absorption: DIN 53495 (24 hours)	< 1%			
Chemical resistance: EN 1847, EN 1928 Method B (28 days/23°C)	Resistant			
Water vapor transmission: EN 1931	18000 ± 30% μ			
Reaction to fire: EN 13501-1	Class E			

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- Concrete admixtures.
- Surface treatments
- Grouts and anchors.
- Concrete repair.
- Flooring systems.
- Protective coatings.
- Sealants.
- Waterproofing.
- Adhesives.
- Tile adhesives and grouts.
- Building products.
- Structural strengthening.