

# DonProof PT

A flexible PVC waterproofing membrane for underground structures and tunnels



## Description

DonProof PT is a single layer, high quality, homogenous flexible polyvinyl chloride (PVC) waterproofing sheet with a signal layer used for underground structures and tunnels.

The different colours on the two sides (signal layer), light on the exposed surface and dark behind, make it possible to identify immediately any damage to the membrane during installation.

## Applications

Waterproofing of:

- ▲ Underground structures.
- ▲ Tunnels.
- ▲ Basements.
- ▲ Retaining walls.

## Advantages

- ▲ High resistance to micro-organisms and root penetration.
- ▲ High resistance against harsh components found naturally in the soil and underground water.
- ▲ High strength and elongation.
- ▲ Flexible in cold temperatures.
- ▲ Long life expectancy.
- ▲ Easily welded using hot air even at low temperatures.
- ▲ Can be recycled.
- ▲ With a signal layer that indicates damages and aids visual inspection onsite.
- ▲ Temporary UV stability during installation.

## Standards

DonProof PT complies with EN 13491 and EN 13967.

## Limitations

DonProof PT should not be in direct contact with bitumen, oil, solvent and tar as well as plastics other than PVC. On these surfaces it requires a separation layer of non-woven fabric (> 300 g/m<sup>2</sup>).

## Method of Use

DonProof PT must be installed by experienced and qualified personnel.

## Surface Preparation

Surface must be clean, sound and dry. Remove any poorly attached materials or contaminations.

Cover or remove any sharp elements which could damage the PVC membrane. A compatible clean and dry separation layer should be placed between the substrate and the PVC membrane.

## Application

Use a manual or an automatic hot air welding machine with a pressure roller to join the overlapping membrane sheets together. The width of the joint must be at least 30 mm. Adjust the temperature and machine speed of the air welding machine according to the ambient conditions.

To ensure all the welding is done correctly, all seams must be tested with screw driver or steel needle after the joint is cooled. Unwelded points must be repaired with a welding tool.

## Packaging

<b>Thickness (mm)</b>	1.2	1.5	2.0	3.0
<b>Width (m)</b>	2.1	2.1	2.1	2.1
<b>Length (m)</b>	25	25	20	20

Different thicknesses and lengths are available on demand and for a minimum quantity.

## Storage

DonProof PT rolls must be stored horizontally and in parallel in their original packaging, away from direct sunlight in cool and dry conditions.

If these conditions are exceeded, DCP Technical Department should be contacted for advice.



Technical Properties:				
Colour:	Grey & black			
Thickness: EN 1849-2	1.20 mm ± 5%	1.50 mm ± 5%	2.0 mm ± 5%	3.00 mm ± 5%
Mass per unit area: EN 1849-2	1.6 ± 0.1 Kg/m <sup>2</sup>	2.0 ± 0.1 Kg/m <sup>2</sup>	2.7 ± 0.1 Kg/m <sup>2</sup>	4.0 ± 0.1 Kg/m <sup>2</sup>
Tensile strength: UNI EN ISO 527-3 / ASTM D638	≥ 15 N/mm <sup>2</sup>			
Elongation at break: UNI EN ISO 527-3 / ASTM D638	≥ 300%			
Cold flexibility: EN 495-5	≤ -35°C			
Water pressure: (24 h at 10 bar) EN 1928	No leaks			
Resistance to impact: EN 12691	≥ 500 mm	≥ 750 mm	≥ 1000 mm	≥ 1800 mm
Resistance to static loading: EN 12730	≥ 20 Kg	≥ 20 Kg	≥ 20 Kg	≥ 20 Kg
Static puncture: EN 12236	2.0 ± 0.25 kN	2.5 ± 0.25 kN	3.0 ± 0.25 kN	4.0 ± 0.25 kN
Tear resistance EN 12310/2	≥ 100 kN/m			
Microbiological resistance EN 12225	Compliant			
Root resistance UNI CEN/TS 14416	No perforation			
Resistance of welded seam: EN 12317/2	Break outside joints			
Resistance to oxidation: EN 14575	In conformity			
Thermal aging: EN 1296	Pass			
Fire Resistance: EN 13501-1	Euroclass E			
Resistance to acid and alkaline solutions (28 d at 23°C): DIN 16726	± 20% max elongation			

## Cautions

DonProof PT should be welded in a well-ventilated area.

For further information refer to the Material Safety Data Sheet.

## More from Don Construction Products

A wide range of construction chemicals products are manufactured by DCP which include:

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


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**Note:**

We endeavor to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, due to the fact that we have no direct or continuous control over where or how the products are applied, DCP cannot accept any liability either directly or indirectly arising from the use of DCP products, whether or not in accordance with any advice, specification, recommendation or information given by us.

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