A flexible PVC waterproofing membrane for water retaining structures



## Description

DonProof PL is a reinforced flexible polyvinyl chloride (PVC) waterproofing sheet with high UV resistance in the top layer and enhanced flexibility and tensile strength from the bottom layer, for lining of water retaining structures.

## **Applications**

DonProof PL can be used for submerged conditions and in contact with potable water for lining of:

- ▲ Water tanks.
- ▲ Reservoirs.
- ▲ Artificial lakes.
- ▲ Canals.

## **Advantages**

- ▲ Excellent UV resistance.
- ▲ Resistant to roots and microorganisms.
- ▲ Stable even at a wide temperature cycles.
- ▲ Excellent mechanical properties.
- ▲ Long life expectancy.
- ▲ Easily welded using hot air.

#### Limitations

DonProof PL 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 (>  $300 \text{ g/m}^2$ ).

### Method of Use

DonProof PL 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**

DonProof PL can be applied by two methods:

#### Fixing method

The membrane is mechanically anchored in the overlapping seams, and loosely laid under ballast .

#### Welding method

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 has cooled. Unwelded points must be repaired with a welding tool.

## **Packaging**

Each roll is packed in clear LDPE film:
DonProof PL120: 1.2 mm x 2.00 m x 20 m
DonProof PL150: 1.5 mm x 2.00 m x 20 m
DonProof PL180: 1.8 mm x 2.00 m x 15 m

### Storage

DonProof PL 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 advise.

## Cautions

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

For further information refer to the Material Safety Data Sheet.

Technical Properties:		DonProof PL120	DonProof PL150	DonProof PL180	
Colour:		Top layer: Light grey Bottom layer: Dark grey			
Application temperature:		-15°C to 50°C			
Visible defects: EN 1850-2		Not present			
Length: EN 1848-2		20.00 (-0%/+5%) m		15.00 (-0%/+5%) m	
Width: EN 1848-2		2.00 (-0.5%/+1%) m			
Straightness: EN 1848-2		≤ 30 mm			
Flatness: EN 1848-2		≤ 10 mm			
Thickness: EN 1849-2		1.2 (-5%/+10%) mm	1.5 (-5%/+10%) mm	1.8 (-5%/+10%) mm	
Mass per unit area: EN 1849-2		1.45 (-5%/+10%) kg/m <sup>2</sup>	1.90 (-5%/+10%) kg/m <sup>2</sup>	2.30 (-5%/+10%) kg/m <sup>2</sup>	
Water tightness: EN 1928		Pass			
Reaction to fire: EN 13501-1		E (EN ISO 11925-2)		F (EN ISO 11925-2)	
Joint peel resistance: EN 12316-2		≥ 300 N/50 mm			
Joint shear resistance: EN 12317-2		≥ 800 N/50 mm			
Water vapour coefficient: EN 1931		20,000 ± 30%μ	20,000 ± 30%μ	20,000 ± 30%μ	
Tensile strength: EN 12311-2	Longitudinal Transversal	≥ 800 N/50 mm ≥ 800 N/50 mm		≥ 1000 N/50 mm ≥ 1000 N/50 mm	
Elongation: EN 12311-2 Longitudinal Transversal		≥ 10% ≥ 10%			

Technical Properties:	DonProof PL120	DonProof PL150	DonProof PL180	
Tearing strength: EN 12310-2 Longitudinal Transversal	≥ 180 N ≥ 180 N		≥ 200 N ≥ 200 N	
Resistance to impact: EN 12691	≥ 700 mm			
Flexibility under low tempera- ture: EN 495-5	≤ -30°C			
UV exposure: EN 1297	Pass			
Water absorption: EN 1847	≤ 0.3%			

## More from Don Construction Products

A wide range of construction chemical 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.

#### Note:

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