

# DonProof R

High quality FPO/TPO waterproofing membrane



## DESCRIPTION

DonProof R waterproofing membrane is an FPO/TPO flexible roofing membrane composed of thermoplastic polyolefins and reinforced with polyester fabric. It is offered in a range of thicknesses to meet different project requirements.

The unique composition of DonProof R provides a membrane that is soft and flexible at low temperatures while maintaining excellent high-temperature properties.

DonProof R is hot air weldable and designed to perform well in various climatic conditions, it is designed for mechanical fastening on flat or low-sloped roofs, and it offers exceptional resistance to environmental, chemical, and biological factors.

DonProof R is resistant to UV radiation and can be used as an exposed roofing membrane system or protected system for extensive green roofs.

## APPLICATIONS

DonProof R is designed for waterproofing a variety of roof types, both exposed and covered, including:

- » Green roof systems.
- » Roofs with solar panel installations.
- » Ballasted roof systems.
- » Reflective cool roofs.
- » Open, fully exposed roof surfaces.
- » Terraces.

## ADVANTAGES

- » UV-resistant.
- » High wind load resistance.
- » Excellent weathering and environmental resistance.
- » Strong joints achieved through hot air welding.
- » Compatible with bitumen-based roofing systems.
- » Available in different thicknesses.
- » Resistant to root penetration, making it ideal for green roofs and landscaping.
- » Provides energy savings for building owners and improves solar panel output.
- » Recyclable, low carbon footprint.
- » No open flame welding, enhancing safety during installation.

## STANDARDS

DonProof R complies with:

- » EN 13956 as per the technical properties table.
- » Factory Mutual (FM) Approval Class: 4470.



## METHOD OF USE

DonProof R must be installed by experienced and qualified personnel.

## SURFACE PREPARATION

Concrete roofs onto which DonProof R Membrane is to be installed have to be sufficiently cured and dry. Remove any poorly attached materials or contaminations.

Surface should be flat and free from sharp objects, the surface has to be abraded, plain and free of rock pockets, cracks, sharp gratings and nibs. Roof areas should have a continuous slope towards the water outlets. a slope of at least 1:40 is recommended.

## SEPARATION AND PROTECTION LAYERS

Protection layers are primarily used to separate incompatible products or to prevent damage. DonProof R membrane does not require any separating layers when in contact with bitumen and polystyrene as they are fully compatible.

### » Protective Layers Below the Membrane:

Protective layers are mandatory over concrete and recommended over other substrates to prevent damage from rough or uneven surfaces, especially bituminous ones to avoid discoloration.

Suitable materials include polyester or polypropylene fleeces, or a single layer of insulation (PIR / PUR, Mineral wool (stone wool/glass wool), XPS or EPS polystyrene) applied over a vapor control layer.

### » Protective Layers Above the Membrane:

A protective layer is required above the membrane in ballasted systems, especially if the roof will be used as a recreational area or if gravel is applied using pneumatic blowing. In green roofs, the drainage or water retention layers typically serve this protective function.

TECHNICAL PROPERTIES:	DONPROOF R1.2	DONPROOF R1.5	DONPROOF R1.8	DONPROOF R2.0
Colour:	White, grey white, light grey, silver grey, dark grey			
Thickness*: EN 1849-2	1.2 mm	1.5 mm	1.8 mm	2.0 mm
Mass per unit area*: EN 1849-2	1.5 kg/m <sup>2</sup>	1.9 kg/m <sup>2</sup>	2.1 kg/m <sup>2</sup>	2.3 kg/m <sup>2</sup>
Tensile strength (L/T)**: EN 12311-2 (A)	≥ 1050 N/50 mm			
Elongation (L/T)**: EN 12311-2 (A)	≥ 15%			
Water tightness: EN 1928 (A)	Pass (10 kPa)			
Water vapor resistance (Sd-value): EN ISO 12572	250 m	320 m	380 m	430 m
Impact resistance**: EN 12691 (A)	≥ 500 mm	≥ 600 mm	≥ 800 mm	≥ 1000 mm
Static load resistance**: EN 12730 (C)	≥ 20 kg			
Tear resistance (L/T) **: EN 12310-2	≥ 400 N	≥ 400 N	≥ 400 N	≥ 500 N
Joint peel resistance**: EN 12316-2	≥ 600 N/ 50 mm			
Joint shear resistance**: EN 12317-2	≥ 800 N/ 50 mm			
Foldability at low temperatures**: EN 495-5	≤ -25°C			
Exposure to UV: EN 1297	Pass ≥ 5000 h			
Radon gas resistance: SP 3873	2.8 x 10 <sup>8</sup> s/m	3.5 x 10 <sup>8</sup> s/m	4.2 x 10 <sup>8</sup> s/m	4.7 x 10 <sup>8</sup> s/m
External fire performance: EN 13501-5	B <sub>ROOF</sub> (t1)	B <sub>ROOF</sub> (t1, t2, t3)	B <sub>ROOF</sub> (t1, t2, t3)	B <sub>ROOF</sub> (t1, t2, t3)
Reaction to fire: EN 13501-1	Class E			
Dangerous substances:	None			
<p>* MDV = Manufacturer's declared value.  **MLV = Manufacturer's limiting value.</p>				

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## APPLICATION

Unroll each membrane sheet in the intended direction. Straighten and tighten the sheet to eliminate wrinkles and ensure it lies flat and fix the ends to keep the membrane in place.

For Exposed Roof Systems, mechanically fix the membrane along one longitudinal edge. Place the fixings 30 mm from the edge of the sheet. This anchoring provides stability for welding and prevents movement.

Lay the next membrane sheet with a minimum overlap of 120 mm onto the first one. Use the pre-marked guideline located 110 mm from the edge to ensure accurate alignment and consistent overlap.

In Protected Roof Systems, the membrane is wind protected by the ballast; thus no fasteners are required. Due to this the overlap can be reduced from 120 mm to  $\geq 80$  mm In Protected Roof Systems.

Use an automatic hot air welding machine with a 40 mm nozzle and a temperature range of +400°C to +600°C.

### *Pre-weld:*

Begin by creating a pre-weld line. Fix the upper membrane sheet approximately 50 mm from the edge by pressing the silicone roller down onto the edge of the underlying sheet.

This creates a narrow initial weld that prevents hot air from escaping during the main welding process and helps maintain consistent temperature. The pre-weld also ensures proper sheet alignment and positioning for final welding.

### *Main Weld:*

Perform the main weld over the remaining 40 mm width of the overlap. Move the hot air welder and silicone roller in a slow, continuous motion along the seam. This controlled movement ensures consistent heating and pressure, resulting in a watertight and durable weld.

Once welding is complete, reduce the temperature setting on the tool, but allow the blower to continue running until the air has cooled. This step protects the heating elements and extends the life of the tool.

Once cooled, inspect the welded seams for continuity and strength. Re-weld any areas showing defects or weakness.

## PACKAGING

DonProof R1.2:

- » Width: 1.60 m, Length: 20 m.
- » Roll: 32 m<sup>2</sup>/48 kg + core.

DonProof R1.5

- » Width: 1.60 m, Length: 20 m.
- » Roll: 32 m<sup>2</sup>/61 kg + core.

DonProof R1.8

- » Width: 1.60 m, Length: 15 m.
- » Roll: 24 m<sup>2</sup>/50 kg + core.

DonProof R2.0

- » Width: 1.60 m, Length: 15 m.
- » Roll: 24 m<sup>2</sup>/55 kg + core.

## STORAGE

DonProof R rolls must be stored in their original packaging, away from direct sunlight in cool, dry and frostfree conditions. Shelf life is 5 years.

Store the product horizontally on a pallet. Please avoid placing pallets of rolls on top of one another or beneath pallets that hold different materials when transporting or storing them.

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

## CAUTIONS

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

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



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## 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:**

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.