DualProof T

High quality pre-applied PVC waterproofing membrane

Description

DualProof T is a fully and permanently mechanical bonded pre-applied PVC waterproofing membrane. It consists of a special nonwoven PP-fleece co-extruded with a highly flexible PVC membrane designed for use with structural reinforced concrete.

DualProof is cold-applied and pre-applied, as it is installed without heat or open-flames, and before the steel reinforcement is fixed and the concrete is poured.

Once poured, the fresh concrete is embedded completely into the special developed and designed fleece and creates a unique and permanent mechanical bond which prevents any lateral water migration, even in the event of any local damage to the membrane.

Applications

Waterproofing of:

- Water under hydrostatic pressure.
- Lateral water migration for deep, one or multilevel below grade structures.
- Additional sealing membrane to all watertight concrete structures.

Concrete protection against:

- Various gases of the ground (Radon Test).
- Different types of chemicals in solution (sulphate, chloride, carbonate, hydrogen carbonate, etc.).
- Contaminated ground water.

Damp-proofing against:

- Rising humidity through capillary action.
- Percolating water, for slab-on-ground foundations, column footings, strip foundations, and walls.

Advantages

- No water migration between membrane and concrete structure.
- Tough and resistant, quick and easy to install, high compound shear strength.
- Can be installed in every season, independently of temperature and weather condition.
- Long term watertight durability.
- Assured watertight integrity – over bridges cracks.

Technical Properties:

Colour:	Transparent membrane with white fleece
Tensile strength MD/ CMD: EN ISO 12311-2 (A)	≥ 970 / 970 N/ 50 mm
Elongation at break MD/CMD: EN ISO 12311-2 (A)	≥ 60% / 60%
Tear resistance MD/ CMD: EN 12310-1 (nailshank)	≥ 500 / 500 N
Resistance to impact: EN 12691 (A)	≥ 600 mm
Resistance to static load: EN 12730 (A)/(B) [24 hr/20 kg]	≥ 20 kg
Water vapour diffusion resistance: EN 1931	g ≥ 1,41E-08 (-8 %) kg/ (m^2s) Sd ≥ 28,9 (-8 %) m μ ≥ 12391 (-8 %)
Shear resistance in the overlapping: EN 12317-2	collapse outside of the overlapping: ≥ 300 N/ 50 mm
Watertightness towards water: EN 1928 (B)	Watertight at Pressure: 500 kPa for 72 h
Durability against Artificial aging: EN 1296 / EN 1928 (B)	Pass at 12 weeks / 70°C & Pressure 60 kPa
Durability against Chemicals: EN 1847 / EN 1928 (B)	Pass using $Ca(OH)_2$ / H_2SO_3 / NaCl & Pressure 60 kPa
Compatibility with bitumen: EN 1548 / EN 1928 (B)	Pass at 28 d/ 70°C & Pressure 60 kPa
Reaction to fire: EN ISO 11925-2 EN 13501-1	Class E

DualProof T

- Protects structures against ground contaminants and salt water.
- Excellent solution for in-situ concrete.

Standards

DualProof T complies with EN 13967 as Flexible waterproofing membrane for all kinds of below ground structures against pressurised water. DualProof T is also used to provide all grades of basement protection in accordance with BS 8102:2009.

Method of Use

Surface Preparation

All substrates onto which DualProof T Membrane is to be installed should be flat and free from sharp objects and voids that are greater than 12 mm should be repaired. Lean-mix Concrete or compacted sands are suitable base substrates.

Application

Installation of DualProof T membrane on horizontal substrates:
DualProof T membrane should be placed onto the properly prepared surface with the fleece facing towards the concrete to be poured. Install the first length of DualProof T membrane in order that one end is flush with the top of the form-work stop-end, and is allowed extend down over the fillet and out onto the properly prepared substrate by at least 300mm.

Secure the membrane using nail-fixings at 500 mm centres along the top of the formwork stop-end. The steel reinforcement should then be placed as soon as possible after the membrane is installed. Do not use reinforcement carriers which have sharp ends. Flat cement-based carriers should be used. Where possible place the carriers along the overlaps.

Technical Properties:	
Visible defects Querschnitt/Cross section: EN 1850-2	Pass
Resistance to root penetration: (membrane & jont) DIN CEN/TS 14416 EN 13491	Pass, no root penetration

Installation of DualProof T Membrane on Vertical Substrates

DualProof T membrane should be installed on properly prepared vertical surfaces by cutting the membrane into the required lengths, securing the membrane at the top using nail-fixings, and allowing it to extend down over the previously installed under-slab membrane by at least 100 mm.

If required additional nail-fixings may be used placed at 500 mm centres along the clear selvedge where they will be covered by subsequent rolls.

Welding of overlaps
Using a clean dry cloth, clean the face of the selvedge on the first roll. Position the subsequent roll in order that the edge-selvedge on the previous roll will be overlapped by a minimum of 50 mm.

All overlaps must be heat welded together, and compressed using a wooden roller.

The ends of the membrane should be staggered by a minimum of 300 mm.

Packaging

	DualProof T1.0	DualProof T1.2
Thickness of PVC (without fleece thickness)	1.0 mm	1.2 mm
Width	2 m	2 m
Length	25 m	25 m

Storage

DualProof T rolls must be stored in their original packaging, away from direct sunlight in cool, dry and frost-free conditions. Shelf life is 5 years.

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

Cautions

DualProof T 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 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.

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