

Neuchâtel Armourplan Single Ply Roofing System



TECHNICAL
DATA SHEET (TDS)

JULY 2024

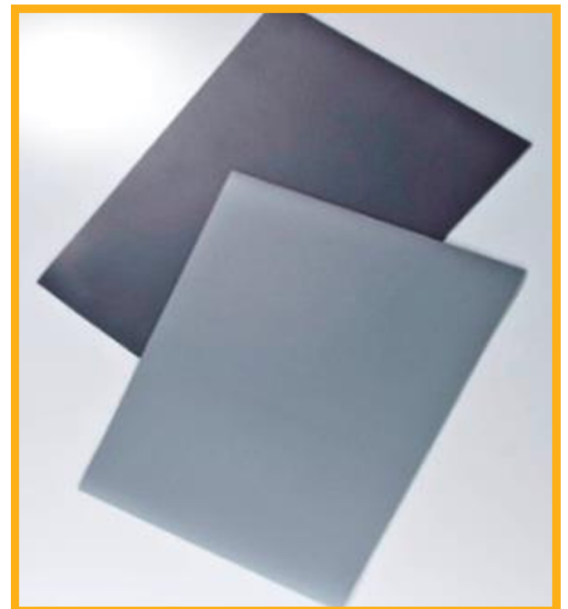
TECHNICAL DATA SHEET

NEUCHÂTEL ARMOURPLAN P

SINGLE PLY ROOFING SYSTEM

Product Information

Polyester scrim reinforced membrane for mechanically fastened roofing systems. Offers enhanced mechanical properties over standard PVC membranes thanks to having high polymer content throughout and high reinforcement. Used on both flat and sloping roofs and is suitable for both new build and refurbishment installations. Completely UV stable throughout. Mechanically fastened in the overlap using IKOfix Stress Plates and IKOfix Screws into the deck. Suitable for loose laid ballasted systems. Suitable for adhered systems bonded using Armourplan contact or Sprayfast PCA adhesive. Armourplan P is also used as the upstand detailing membrane on all Armourplan P/PSG systems.



Product Data

DESCRIPTION	ARMOURPLAN P
Thickness mm	1.2mm
Widths	1.06m/2.12m
Length	20m
Colour	Mid Grey (nearest RAL 7046) Slate Grey (nearest RAL 7015)
Material	PVC-P
Reinforcement	Woven Polyester Scrim
Product Code	470***12 – Mid Grey 472***12 – Slate Grey

KEY FEATURES & BENEFITS

- ✓ BBA Certified 05/4287
- ✓ Good UV resistance and durability
- ✓ Good mechanical properties & product performance
- ✓ Efficient and safe installation
- ✓ Aesthetically pleasing finish
- ✓ Complete range of fixings and accessories available

Specification

To complete the installation of Armourplan P, the system includes a wide range of accessories, including detailing and walkway membrane, cover strips, preformed corners and outlets, standing seam profile, pre-coated metal sheet for forming edge details, IKOfix fastening systems and termination bars, insulation and vapour control layers, adhesives, cleaners, sealants and rooflights.



Independent Accreditation

- ▶ BBA Agreement Certificate No. 05/4287
- ▶ CE marked 
- ▶ Manufactured in accordance with BS EN ISO 14001, ISO 9001 and BES 6001
- ▶ CodeMark Certified CMNZ70094

Design Considerations

Before use, thoroughly stir the Armourplan PVC Contact Adhesive. Replace the container lid when work is interrupted. Unroll the Armourplan P over the primed substrate and fold back approximately half its length. If the substrate is PIR insulation then all the board joints are to be taped using self-adhesive foil faced tape prior to the primer coat being applied. Apply a primer coat of Armourplan PVC Contact Adhesive using a roller or apply Sprayfast PCA adhesive to the prepared substrate surface, priming only the area of substrate where the membrane will be laid the same day. Allow adhesive to become tacky. Apply a coat of Armourplan PVC Contact Adhesive using a roller or apply Sprayfast PCA adhesive to the underside of the Armourplan P membrane ensuring the weld area is kept free of adhesive and allow to become tacky.

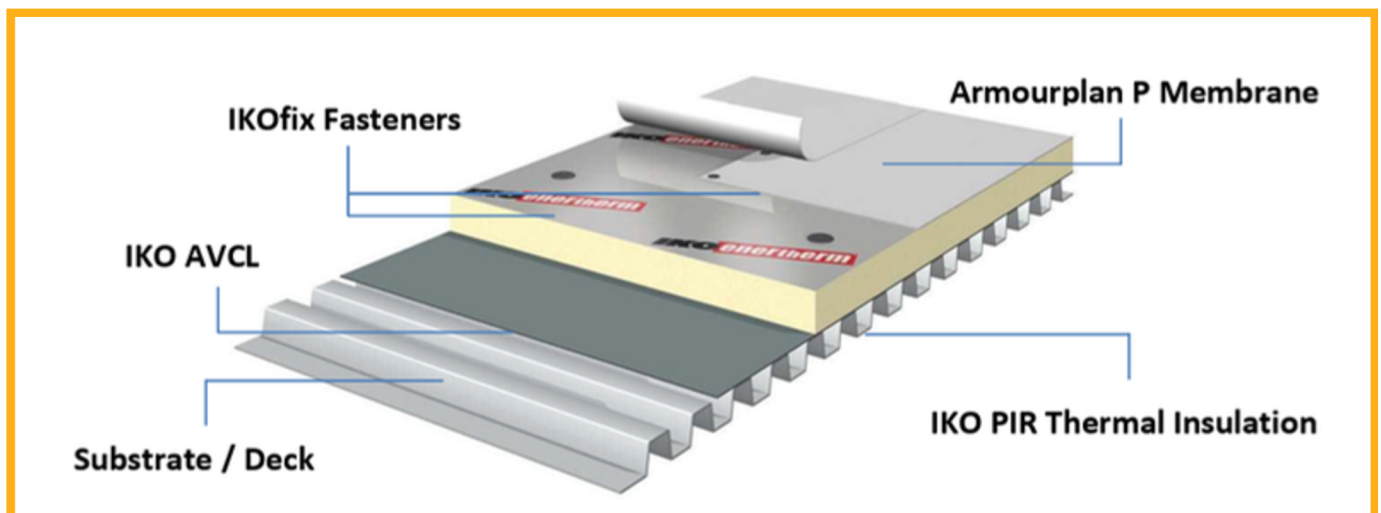
Carefully roll out the Armourplan P over the previously primed surface and roll with water filled roller or soft broom to ensure intimate contact between the two surfaces. Fold back other half of the roll of Armourplan P and repeat the procedure. Unroll the next roll of Armourplan P, ensuring the end laps are staggered and the side overlaps the previously installed sheet by 60mm. Repeat the adhering process. Fully hot air weld the 60mm side lap, allow to cool completely. Mechanically check the integrity of the cooled weld by running a seam probe or 4mm wide screwdriver (with rounded edges) along the seam applying pressure into the seam. Important: Armourplan PVC Contact Adhesive must only be applied to 100% dry substrates at temperatures above 5°C. Failure to do so could result in the membrane de-bonding.



Mechanically Fastened Application

Carefully unroll the Armourplan P out over the previously prepared substrate. If installing on a profiled metal deck ensures that the membrane is perpendicular to the direction of the deck sheet. Install the IKOfix fasteners, using an appropriate installation tool 35mm from the rear edge. Fasteners must be installed at the fixing centers specified by IKO for the specific project. Unroll the next roll of Armourplan P ensuring the end laps are staggered and the side overlaps the previously installed sheet by 110mm. Hot air welds the side laps with an automatic welder or hot air gun and allow to cool completely. Mechanically check the integrity of the cooled weld by running a seam probe or 4mm wide screwdriver

(with rounded edges) along the seam applying pressure into the seam. In corners and other areas where additional fastening is required install IKOfix fasteners through the roof sheet and cover with a 200mm wide strip of Armourplan P. Hot air weld both sides and ends. At upstands and at all roof penetrations secure the Armourplan P membrane with a toothed flatbar. Cover 10mm gap in the toothed flatbars with a 50mm x 50mm piece of Armourplan P and weld to the roof sheet. Waterproof the toothed flatbar with the upstand flashing hot air welded to the roof sheet. NB: This is a guide only – please refer to Armourplan Application Manual for Contractor notes.



Typical Properties

CHARACTERISTIC PROPERTIES	UNIT	METHOD	ARMOURPLAN P
Thickness +10%/- 5%	mm	EN 1849-2	1.20
Length +1%/- 0.5%	m	EN 1848-2	20.00
Width +1%/- 0.5%	m	EN 1848-2	2.12
Weight +10%/- 5%	g/m ²	EN 1849-2	1700
Tensile strength (MD/TD)	N/50 mm	EN 12311-2	≥ 1500
Elongation at break	%	EN 12311-2	≥ 15
Tear resistance	N	EN 12310-2	≥ 150
Peel strength of joints	N/50 mm	EN 12316-2	≥ 200
Shear strength of joints	N	EN 12317-2	≥ 1200
Hail resistance	m/s	EN 13583	≥ 30
Nail Tear	N	EN 12310-1	≥ 150
Impact Resistance	mm	EN 12691	≥ 1100 Soft ≥ 450 Hard
Static Load	Kg	EN 12730	≥ 20
Dimensional stability 6 hrs at 80°C	%	EN 1107-2	≤ 0.5
Flexibility at low temperatures	°C	EN 495-5	≤ -30
External exposure to fire		BS EN 476-3	Ext F.AB
		EN 13501	T1 – NPD T2 – NPD T3 – NPD T4 – Pass*
Water tightness		EN 1928 method B	Pass
Root Resistance			NPD
Minimum Overlap (Adhered/Ballasted)	mm		60
Minimum Overlap (Mechanically Fastened)	mm		110
Minimum welding width (Automatic)	mm		>30
Minimum welding width (Hand Welder)	mm		>60
Welding temperature	°C		380-450

*Broof T4 applicable to tested build ups only. Please contact technical for further information.

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