

Armourplan SM200

Product Details

| | |
|----------------------|--|
| Thickness | 2.0mm |
| Widths | 1.50m |
| Length | 20m |
| Colour | Mid Grey (nearest RAL 7046) Slate Grey (nearest RAL 7015) |
| Material | PVC-P |
| Reinforcement | Woven Polyester Scrim |
| Product Code | 42015020 – Mid Grey 43015020 – Slate Grey |



Introduction

- Armourplan SM is a polyester scrim reinforced membrane for mechanically fastened roofing systems on both flat and sloping roofs.
- It is suitable for both new build and refurbishment installations.
- The membrane is mechanically fastened in the overlap using IKOfix Stress Plates and IKOfix Screws into the deck. Overlaps are hot air welded.
- Armourplan SM can also be used for ballasted systems or alternatively in adhered systems bonded using Armourplan contact adhesive or Sprayfast PCA adhesive.
- Armourplan SM is also used as the upstand detailing membrane on all Armourplan SM/SG systems.

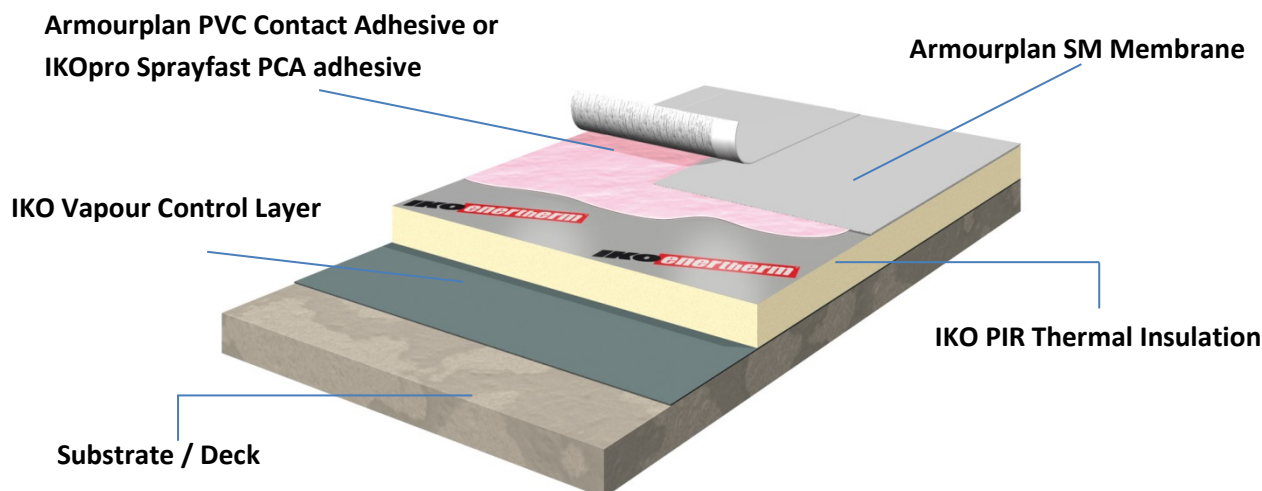
Features & Benefits

- Good UV resistance and durability
- Good mechanical properties and product performance
- Efficient and safe installation
- Secure seam welding quality
- Aesthetically pleasing finish
- Complete range of fixings and accessories available

System Components

To complete the installation of Armourplan SM, 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.

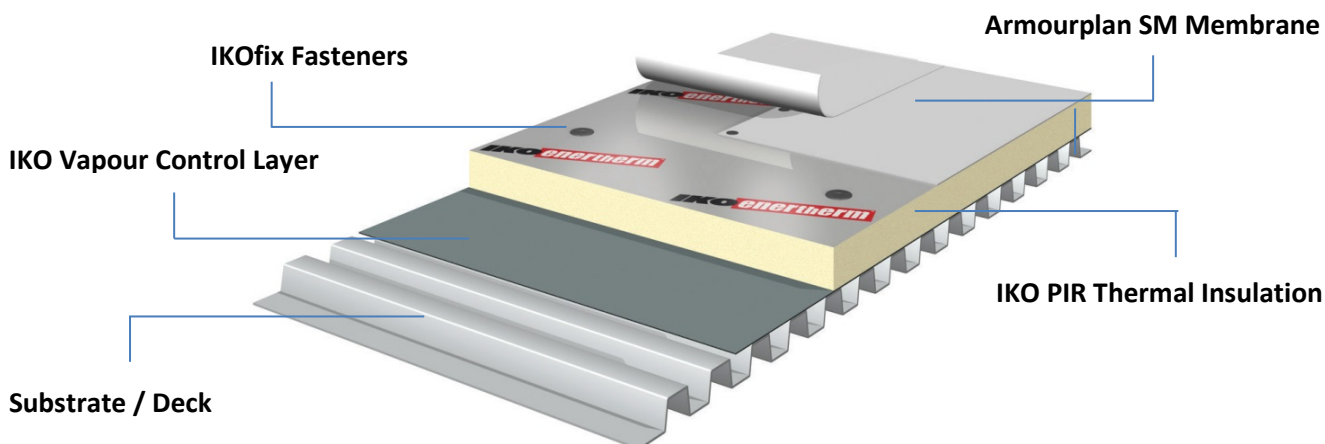
PVC Contact Adhesive Application



1. Before use, thoroughly stir the Armourplan PVC Contact Adhesive. Replace the container lid when work is interrupted.
2. 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 dry.
3. 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.
4. Unroll the Armourplan SM over the primed substrate and fold back approximately half its length.
5. Apply a coat of Armourplan PVC Contact Adhesive using a roller or apply Sprayfast PCA adhesive to the underside of the Armourplan SM membrane ensuring the weld area is kept free of adhesive and allow to become tacky.
6. Carefully roll out the Armourplan SM over the previously primed surface and roll with water filled roller or soft broom to ensure intimate contact between the two surfaces.
7. Fold back other half of the roll of Armourplan SM and repeat the procedure.
8. Unroll the next roll of Armourplan SM, ensuring the end laps are staggered and the side overlaps the previously installed sheet by 60mm.
9. Repeat the adhering process.
10. Fully hot air weld the 60mm side lap, allow to cool completely.
11. 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. Failure to do so could result in the membrane de-bonding.

Mechanically Fastened Application



1. Carefully unroll the Armourplan SM out over the previously prepared substrate. If installing on a profiled metal deck ensure that the membrane is perpendicular to the direction of the deck sheet.
2. 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.
3. Unroll the next roll of Armourplan SM ensuring the end laps are staggered and the side overlaps the previously installed sheet by 110mm.
4. Hot air weld the side laps with an automatic welder or hot air gun and allow to cool completely.
5. 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.
6. 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. Hot air weld both sides and ends.
7. At upstands and at all roof penetrations secure the Armourplan SM membrane with a toothed bar.
8. Cover 10mm gap in the toothed bars with a 50mm x 50mm piece of Armourplan SM and weld to the roof sheet.
9. Waterproof the toothed bar 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

Certification

- BBA Agrément Certificate No. 05/4287
- Euro Agrément Procedure
- UBAtc ATG (No. 13/0475)
- Czech Republic Protokol C 010_011555
- Slovakia Co-operating Institute Certifikat 2601A/04/0520/1/c/c04
- Manufactured in accordance with BS EN ISO 14001



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Typical Properties

| Characteristic properties | Unit | Method | IKO Armourplan SM120 |
|--|------------------|---------------------|--|
| Thickness +10%/- 5% | mm | EN 1849-2 | 2.00 |
| Length +1%/- 0.5% | m | EN 1848-2 | 20.00 |
| Width +1%/- 0.5% | m | EN 1848-2 | 1.5 |
| Weight +10%/- 5% | g/m ² | EN 1849-2 | 2700 |
| Tensile strength (MD/TD) +/- 20% | N/50 mm | EN 12311-2 | 1250 |
| Elongation at break +/- 20% | % | EN 12311-2 | 25 |
| 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 | >1000 |
| Hail resistance | m/s | EN 13583 | 30 |
| Nail Tear | N | EN 12310-1 | 550 |
| Impact Resistance | KPa | EN 12691 | 10 |
| 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 – Pass, T2 – Pass T3 – Pass, 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 | | 385 - 450 |
| Recommended welding speed (Automatic Welder) | m/min | | 1.8 |
| EC Declaration of conformity with standard | | | CE Marked |

Whilst every care is taken to see that the information given in this literature is correct and up to date it is not intended to form part of any contract or give rise to any collateral liability, which is hereby specifically excluded. Intending purchasers of our materials should therefore verify with the company whether any changes in our specification or application details or otherwise have taken place since this literature was issued.



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