

## SPECTRAPLAN SM

### PRODUCT INFORMATION

Polyester scrim reinforced TPE membrane for mechanically fastened roofing systems on both flat and sloping roofs

Suitable for both new build and refurbishment installations

Mechanically fastened in the overlap using IKOfix Stress Plates and IKOfix Screws into the deck. Overlaps are hot air welded.

Can also be used for ballasted and green roof systems or alternatively in adhered systems bonded using Spectraplan contact adhesive.

Also used as the upstand detailing membrane on all Spectraplan SM/SG systems.

### FEATURES & BENEFITS

- BBA Certified 05/4203
- Excellent UV resistance and durability
- No plasticisers or chlorine
- Excellent mechanical properties and product performance
- Efficient and safe installation
- Secure seam welding quality
- Aesthetically pleasing finish
- Complete range of fixings and accessories available

Description	Reinforced single ply membrane
Thickness	1.2mm
Widths	1.50m / 2.05 / 2.12m
Length	20m
Colour	Light Grey (nearest RAL 7035)
Material	TPE (Thermoplastic Elastomer)
Reinforcement	Woven Polyester Scrim
Product Code	520xxxxx – Light Grey



### INDEPENDENT ACCREDITATION

- The product carries a Declaration of Performance Certificate.
- BBA Agrément Certificate No. 05/4287
- CE Marked
- Euro Agrément Procedure
- UBAtc ATG (No. 12/2877)
- SGS / CTG (No. 629)
- Manufactured in accordance with BS EN ISO 14001, ISO 9001 & BES6001



### SYSTEM COMPONENTS

To complete the installation of Spectraplan SM, the system includes a wide range of accessories, including detailing membrane, cover strips, 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.

## **TPE CONTACT ADHESIVE APPLICATION**

Before use, thoroughly stir the Spectraplan TPE Contact Adhesive. Replace the container lid when work is interrupted.

Apply a primer coat of Spectraplan TPE Contact Adhesive using a roller to the prepared substrate surface, priming only the area of substrate where the membrane will be laid the same day. Allow adhesive to dry.

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.

Unroll the Spectraplan SM over the primed substrate and fold back approximately half its length.

Apply a coat of Spectraplan TPE Contact Adhesive using a roller to the underside of the Spectraplan SM membrane ensuring the weld area is kept free of adhesive and allow to become tacky. Carefully roll out the Spectraplan SM 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 Spectraplan SM and repeat the procedure.

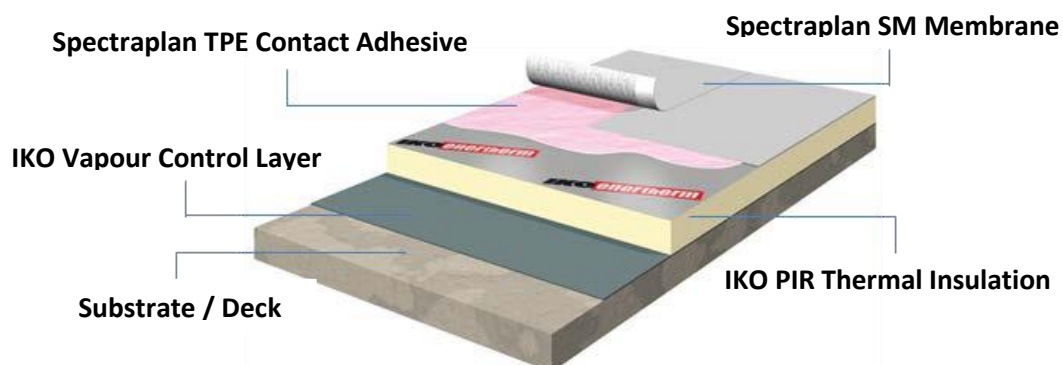
Unroll the next roll of Spectraplan SM, ensuring the end laps are staggered and the side overlaps the previously installed sheet by 60mm.

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: TPE Contact Adhesive must only be applied to 100% dry substrates. Failure to do so could result in the membrane de-bonding



## **DESIGN CONSIDERATIONS** **CONFIGURATION**

Carefully unroll the Spectraplan 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.

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 Spectraplan SM ensuring the end laps are staggered and the side overlaps the previously installed sheet by 110mm.

Hot air weld 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.

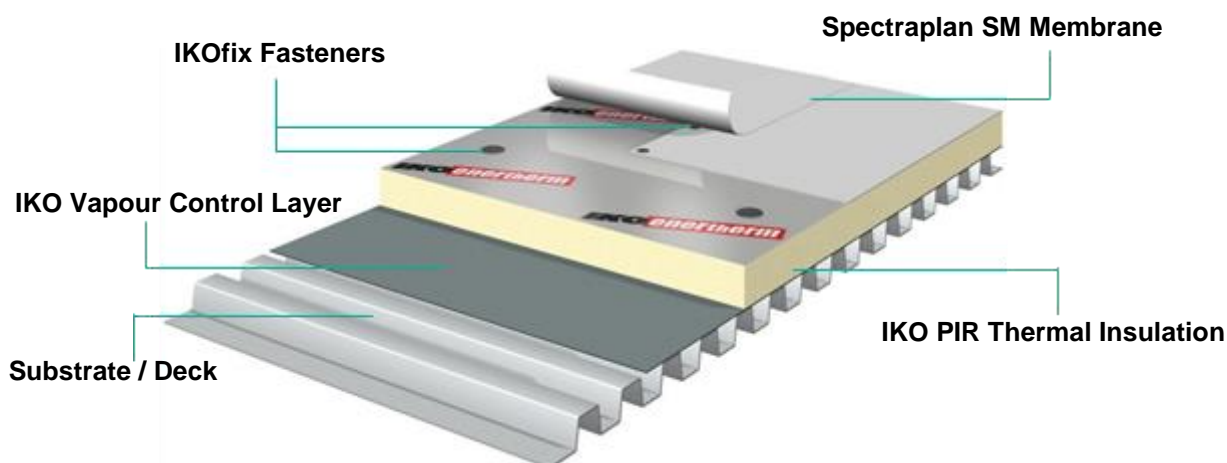
In corners and other areas where additional fastening is required install IKOfix fasteners through the roof sheet and cover with a 200mm wide strip of Spectraplan. Hot air weld both sides and ends.

At upstands and at all roof penetrations secure the Spectraplan SM membrane with a toothed bar.

Cover 10mm gap in the toothed bars with a 50mm x 50mm piece of Spectraplan SM and weld to the roof sheet.

Waterproof the toothed bar with the upstand flashing hot air welded to the roof sheet.

NB: This is a guide only – please refer to Spectraplan Application Manual for Contractor note



## TYPICAL PROPERTIES

Characteristic properties	Unit	Method	IKO Spectraplan SM120
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	1.5/2.05/2.12
Weight +10%/- 5%	g/m <sup>2</sup>	EN 1849-2	1300
Tensile strength (MD/TD) +/- 20%	N/50 mm	EN 12311-2	1320
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	>400
Shear strength of joints	N	EN 12317-2	>850
Hail resistance	m/s	EN 13583	34
Nail Tear	N	EN 12310-1	700
Impact Resistance	KPa	EN 12691	10
Static Load	Kg	EN 12730	25
Dimensional stability 6 hrs at 80°C	%	EN 1107-2	≤ 1.0
Flexibility at low temperatures	°C	EN 495-5	-35
External exposure to fire		BS EN 476-3	Ext F.AB
		EN 13501	T1-Pass T2-NPD T3-NPD T4 – Pass
Water tightness		EN 1928 method B	Pass
Water Vapour Permeability	μ		100,000
Root Resistance			Pass
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		200 - 600
Recommended welding speed (Automatic Welder)	m/min		2.0 – 7.0
EC Declaration of conformity with standard			CE Marked

## FURTHER PRODUCT INFORMATION

Full product literature, health & safety and technical sheets are available as downloads from our website [www.ikopolymeric.com](http://www.ikopolymeric.com) or on request by email [polymeric.marketing@iko.com](mailto:polymeric.marketing@iko.com).