

POLYFOIL TRIATEX

MULTI-APPLICATION TECHNOLOGY MEMBRANE

MULTI-REINFORCED WATERPROOF ELASTIC MEMBRANE
MADE WITH A BLEND OF ELASTOMERIC POLYMERS
WITH VERY HIGH DURABILITY AND STABILITY

GRANTS *LEED* CREDITS

CATEGORIA	CARATTERISTICHE			IMPATTO AMBIENTALE						MODALITA' D'IMPIEGO				
			Reazione al fuoco											
ELASTOMERICHE SPECIALI PER IMPIEGHI SPECIFICI	IMPERMEABILE	REAZIONE AL FUOCO		ECO GREEN	NON CONTIENE AMIANTO	NON CONTIENE CATRAME	NON CONTIENE CLORO	RIGICLABILE	RIFIUTO NON PERICOLOSO	NON CONTIENE OLI USATI	APPLICAZIONE AD ARIA CALDA	APPLICAZIONE CON CHIODI	APPLICAZIONE CON ADESIVO A FREDDO	APPLICAZIONE CON BITUME OSSIDATO FUOCO



GREAT ELASTICITY AND HIGH RESISTANCE



DESCRIPTION

The **POLYFOIL TRIATEX** membrane is multi-reinforced and contains features not available until today such as: easy to lay, simple hot-melt application, high adhesion, flexibility at low temperatures, mechanical resistance, elasticity as well as multiple laying possibilities.

The **POLYFOIL TRIATEX** membrane is based on a blend of highly durable and stable elastomers that create an innovative polymeric matrix. The thermoplastic rubber comprised of elastomeric copolymers gives an ultimate elongation index above 2000%, a springback greater than 300%, cold flexibility of -40°C and resistance to heat greater than 120°C.

The polymeric matrix also possesses exceptional compatibility with various supports and ensures a durable and unyielding join with a peel strength which is maintained over time. **POLYFOIL TRIATEX** is strengthened with a heavy-weight, rot-resistant, multi-layered reinforcement that has very high mechanical strength, elasticity and exceptional stability.

The performance of **POLYFOIL TRIATEX** is concentrated in a reduced thickness of only 2.5 mm and is coated on both sides with Texflamina, a hot-melt non-woven fabric that ensures quick and safe application.

The characteristics of the **POLYFOIL TRIATEX**

membrane are considerably higher than the limits achieved by other waterproofing technologies.

The exceptional fatigue resistance of the **POLYFOIL TRIATEX** membrane, due to its very high elasticity maintained over time even at low temperatures, makes it suitable for use in even the most demanding waterproofing installations; on split laying surfaces or ones which are subject to cracking and vibration, even in particularly cold climates.

POLYFOIL TRIATEX can be used as a single-layer or multi-layer sealing element, in both construction and civil engineering works, for new jobs or for repairs:

- On all slopes, both flat and angled and on curved surfaces.
- On different types of laying surfaces: cement laying surfaces, site-cast or prefabricated; on metal or wooden roofing and on the most commonly used thermal insulation systems for the building industry.
- For the most varied uses: terraces, flat and pitched roofs, stretched flexible structures, foundations, car park roofs in reinforced concrete, waterworks, tunnels, underground passages, undergrounds and subways.

POLYFOIL TRIATEX is a waterproofing membrane tested on expanded polystyrene in compliance with the Standard on reactions to ex-



INTENDED USE OF "CE" MARKING SPECIFIED ACCORDING TO THE AISPEC-MBP GUIDLINES

EN 13707 - REINFORCED BITUMEN SHEETS FOR ROOF WATERPROOFING

- Exposed single-layer (with superficial finishing)
- POLYFOIL TRIATEX

ternal fire of Scandinavian countries, Nord Test Method-Resistance to fire spread according to SS 02 48 24 - NT FIRE 006 recognised as the European method UNI ENV 1187/2.

It has also been classified as Broof (t2), in compliance with UNI EN 13501-5, on both combustible and non-combustible substrates.

The fire-resistant properties are long-lasting and constantly monitored in the factory.

The **POLYFOIL TRIATEX** membrane can be applied on both flat and pitched roofs. It is the ideal solution under solar energy systems with panels that have a class 2 or equivalent fire reaction rating on roofs classified as Broof(t2), according to the Memorandum on the fireproofing requirements of solar energy systems installed on the roofs of buildings in which activities subject to fire prevention control are carried out, issued by the Fire Service Department of the Home Office on the 7th February 2012 and the subsequent clarification note dated 4th May 2012

CERTIFICATIONS



"Istituto Giordano"

Hail impact resistance



"Istituto Giordano"

It has passed the fire-resistance tests pursuant to ENV 1187/2 and is classified compliant with EN 13501-5: **B_{roof}(t2)**.

(See following)

(See previous)

METHOD OF USE

The innovative MAT technology (Multi-Application Technology) of the **POLYFOIL TRIATEX** membrane allows the product to be applied using different techniques, adapting to all requirements and under all conditions.

• APPLICATION TECHNIQUES

1. **POLYFOIL TRIATEX** applied dry on the laying surface and mechanically fixed under the overlaps with suitable rectangular 40x80mm fixings with rounded edges every 25 cm. The overlaps must be sealed using hot air.
2. **POLYFOIL TRIATEX** can be partially or fully bonded to the support using gas powered hot air torches.
3. **POLYFOIL TRIATEX** can be laid with glue, using MASTIPOL cold adhesive for the horizontal parts and HEADCOLL cold adhesive for the vertical turn-ups. The overlaps must be sealed using hot air. The maximum slope of the roof for cold laying must be less than 5% and the materials compatible with the adhesives are: concrete, wood, metal, old bituminous membranes, polyurethane foam, high density rock wool and expanded perlite. For more information, see the INDEX guide to laying with adhesives and the technical data sheet for MASTIPOL and HEADCOLL products.



• FINISHING

POLYFOIL TRIATEX has been designed and manufactured so it can be painted immediately after laying.

The particular finish improves the bonding and adhesion of paints and makes them last longer.

POLYFOIL TRIATEX can be painted with all INDEX roof paints that offer a range of 307 colours (Long Life Colour Swatch) in addition to copper, aluminium and white reflective high-emission paints for the passive cooling of roofs by increasing their ability to reflect the sun rays (the so-called 'cool roof').

WHITE REFLEX paints are used to protect the membranes and these not only extend the life of the roof coverings but also keep down the temperature, both outside and inside the building.

The highly reflective properties of WHITE REFLEX Fire Resistant and STRONG REFLEX AB significantly reduce the heat absorbed by the sun's rays compared to a dark surface, contributing to the comfort of the occupants during summer and allowing compliance with the limits stated for the 'cool roof' of the Appendix to Interministerial Decree of 26/06/2015 for both flat and pitched roofs; this consequently leads to a considerable reduction in temperature and to substantial savings in energy for the summer conditioning of both residential and farm buildings.

The reduction in temperature and diffused light as a result of the reflective paint increase the efficiency of solar panels installed on the roof. In fact, the efficiency of the panels reduces by approximately 5% every 0.5 °C of deviation from 25° C (the temperature at which maximum efficiency is obtained). Painting the roofs with WHITE REFLEX Fire

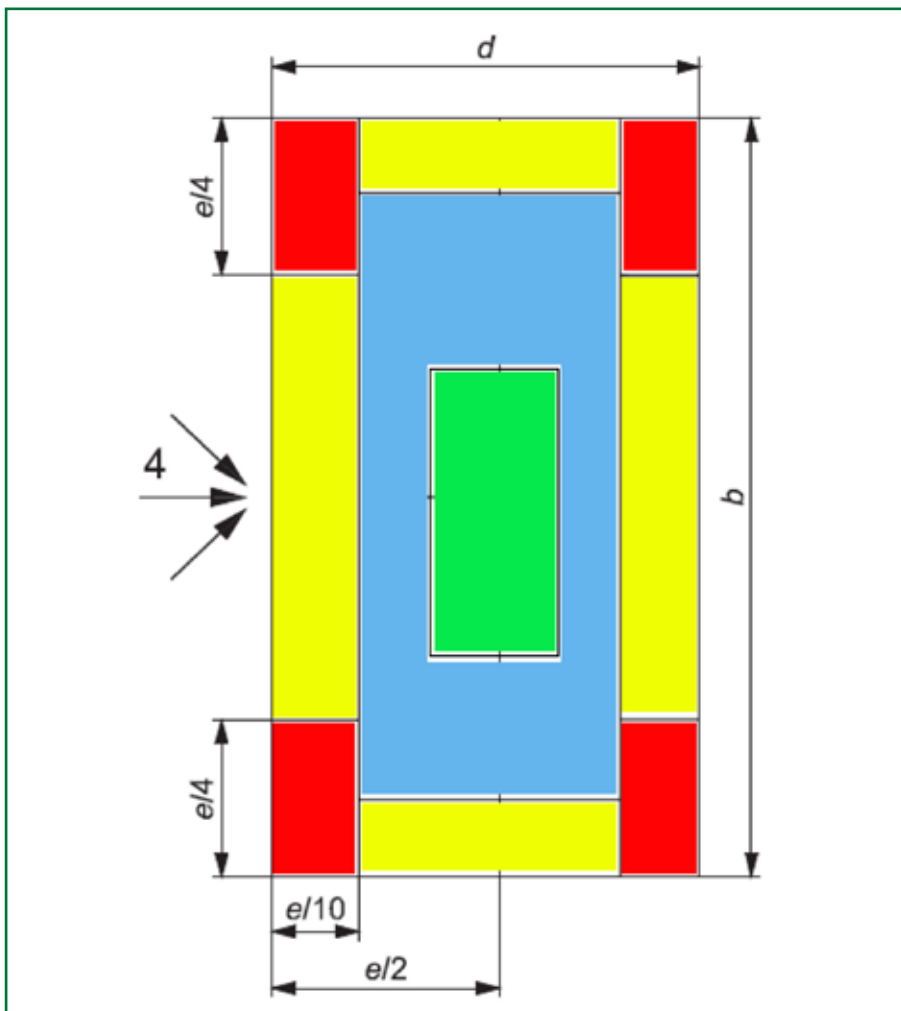
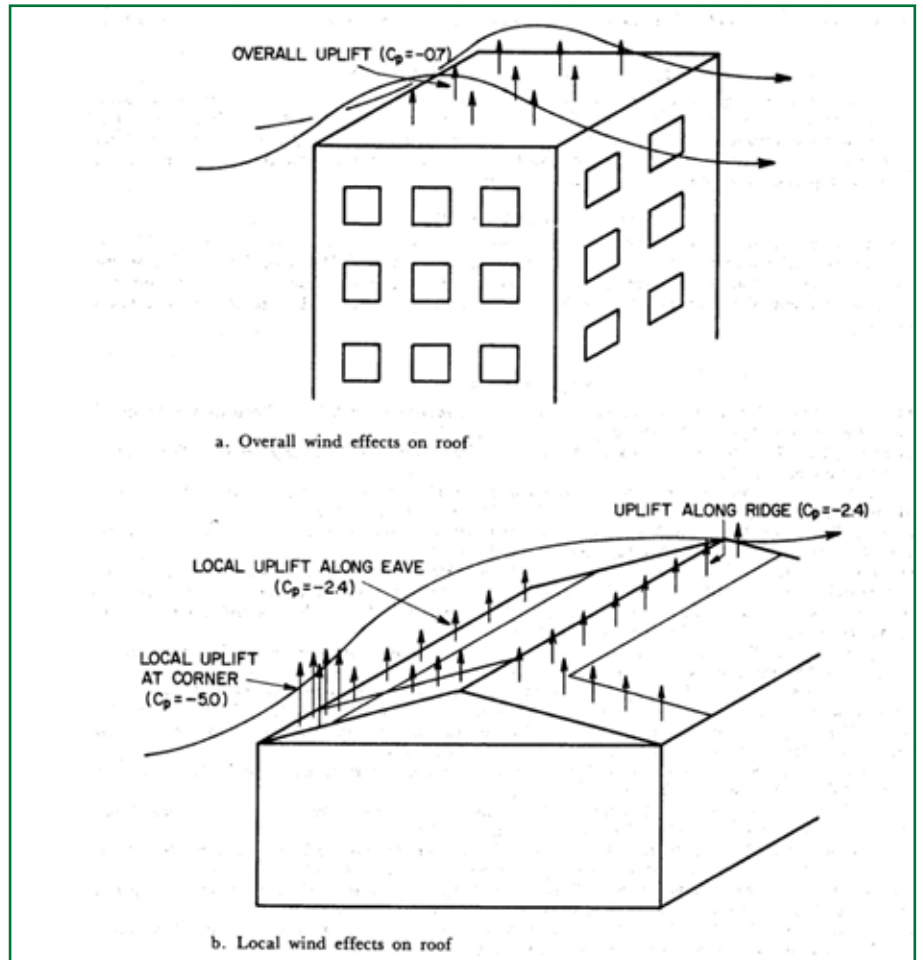


Resistant and STRONG REFLEX AB satisfies the criteria of the different environmental protocols (CAM PANGPP, ITACA Protocol, LEED Protocol) for sustainable building.



Application by Mechanical Fixing

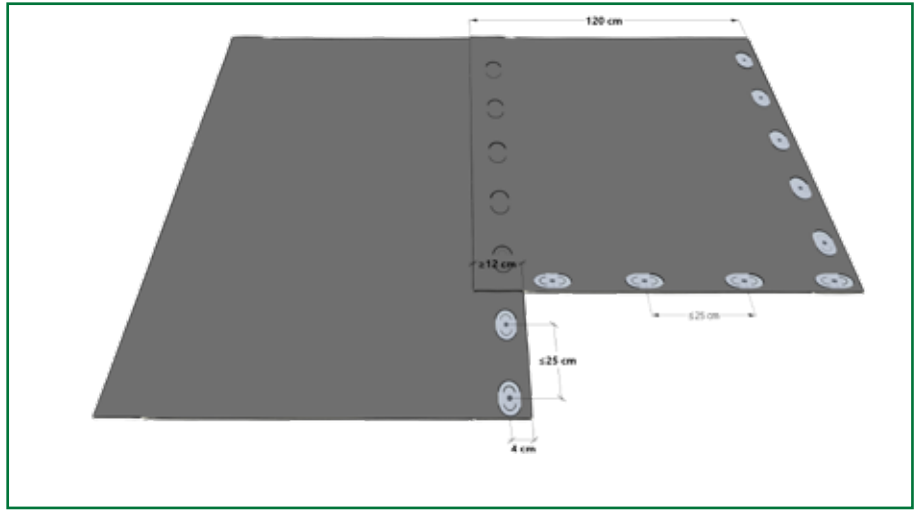
The number of mechanical fixings must be set by the designer according to the UNI 11442 Standard which identifies the maximum depression values on the roof based on the area of intervention and the morphology of the building.



The same legislation identifies precise areas based on the force exerted, as summarised in the drawing:

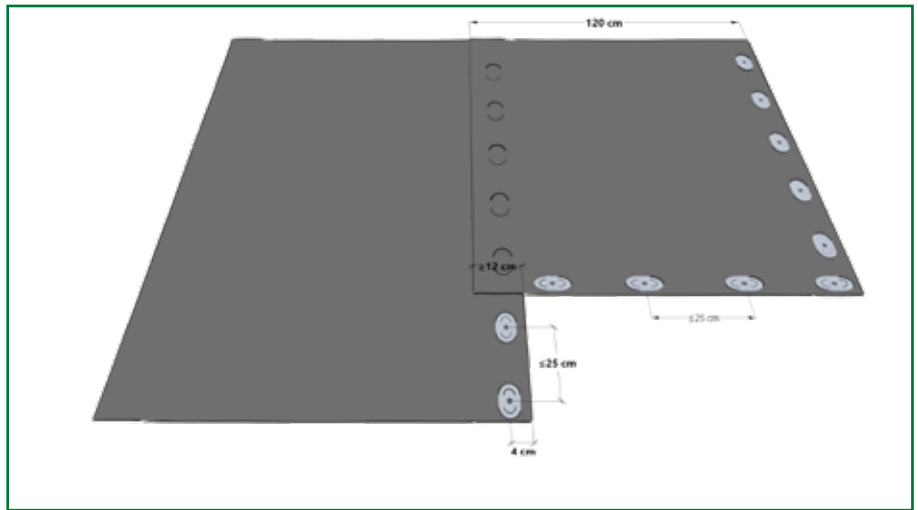
Fixing under the longitudinal selvedge

Fixing is achieved with a screw suitable for the type of support and a 40 × 80 mm metal plate with rounded edges. The distance between fixings must be 25 cm or less and the hole is positioned at 4cm from the edge of the membrane. The overlap of the next membrane must be at least 12cm and is fully hot-air sealed and suitably rolled.



End fixing under the transverse selvedge

Fixing is achieved with a screw suitable for the type of support and a 40 × 80 mm metal plate with rounded edges. The distance between fixings must be 25 cm or less and the hole is positioned at 4cm from the edge of the membrane. The overlap of the next membrane must be at least 15cm and is fully hot-air sealed and suitably rolled.



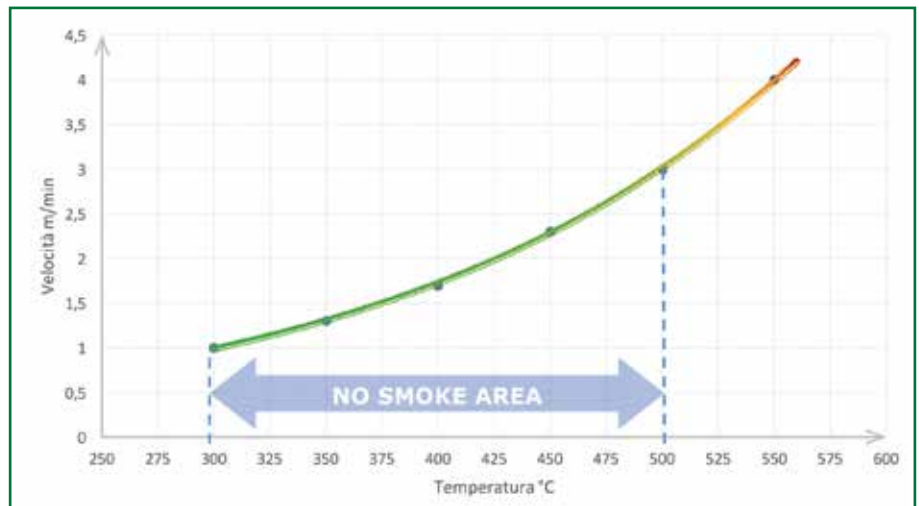
Sealing the overlaps and details

The overlaps must be sealed with hot air using special guns.

The table at the side indicates the **range of speeds and temperatures** that can be combined for automatic machinery (data measured with an ambient temperature of 20°C; strong temperature changes may require corrections to the speed of the machine).

The sealing on the overlaps must be at least 8 cm.

Sealing should be performed with the aid of seam rollers or similar equipment.



Sheets on flat surfaces can be sealed with an automatic hot air sealer.



Details

DETAILS OF INTERNAL CORNER

Creating the internal and external corners is a very simple procedure and follows the basic rules of applying polymer-bitumen membranes. For the sequence in which the corner turn-ups are made please see the Index Spa "GUIDE TO LAYING".

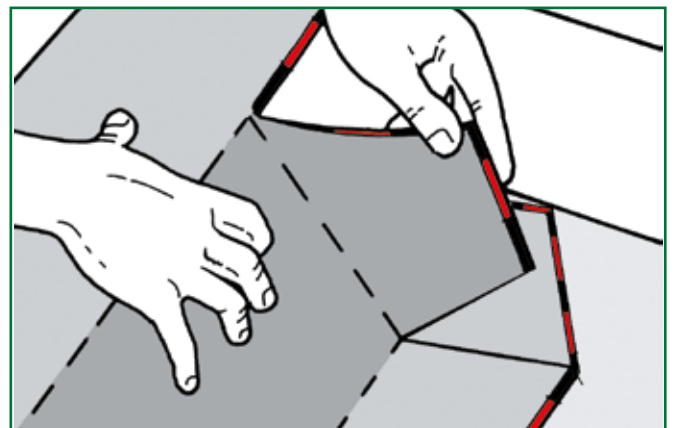
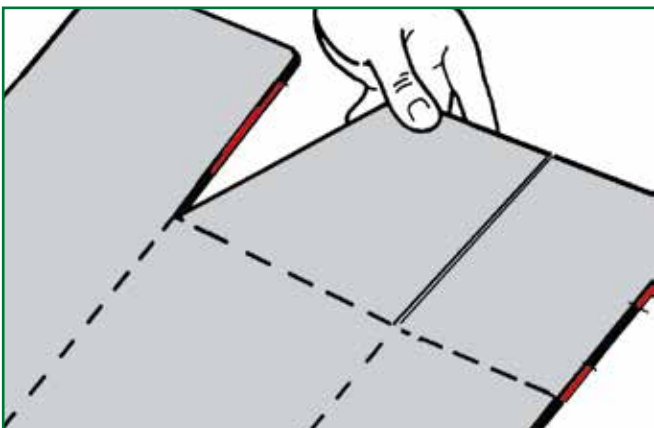
1. Laying the **POLYFOIL TRIATEX** membrane and turning it up vertically



2. Mechanical fixing on the vertical turn-up every 25 cm along all the entire perimeter just laid



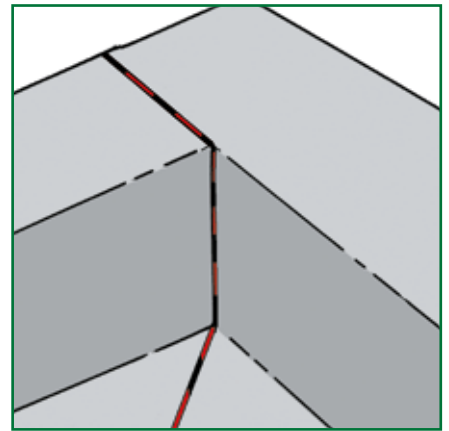
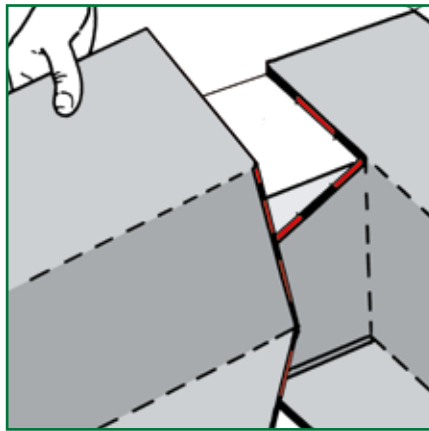
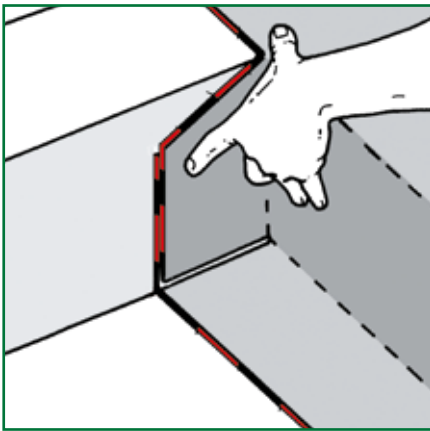
3. Preparing the membrane for vertical turn-up



4. Applying a self-adhesive waterproofing membrane reinforcement piece at the corner.



4. Applying **POLYFOIL TRIATEX** to vertical turn-ups



DETAILS OF EXTERNAL CORNER

1. Laying the **POLYFOIL TRIATEX** membrane and turning it up vertically. Mechanical fixing on the vertical turn-up every 25 cm along all the entire perimeter just laid.



2. Applying a **POLYFOIL TRIATEX** self-adhesive waterproofing membrane reinforcement piece at the corner.

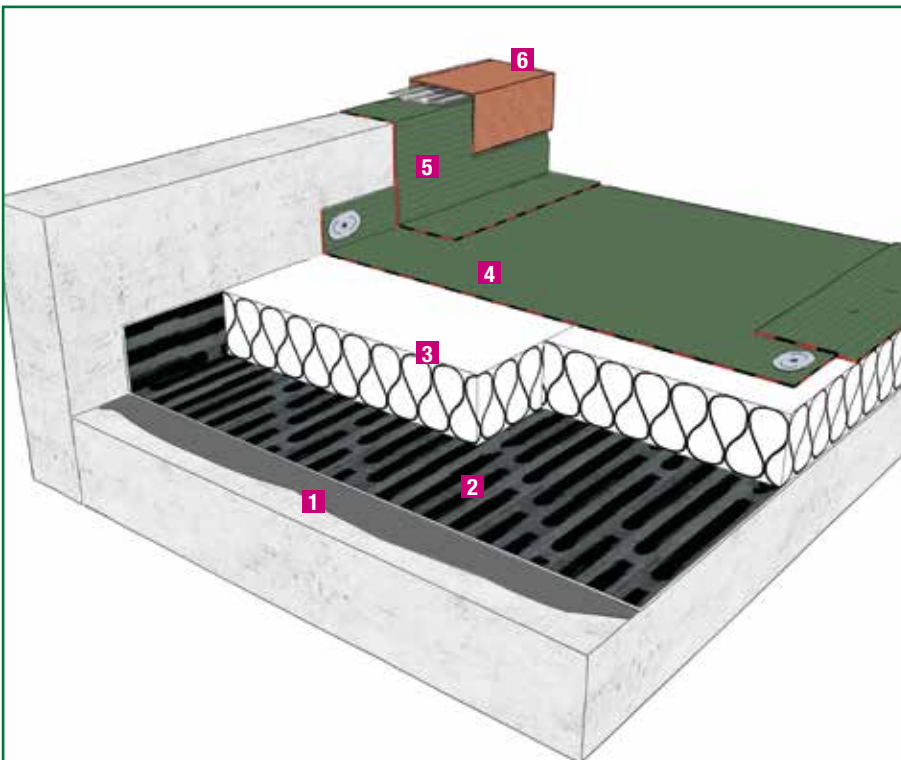


3. Preparing and positioning the membrane for vertical turn-up on the external corner. Subsequent sealing the overlaps with hot air.



INSULATED VERTICAL TURN-UP

As described in the previous 'corner detail' procedure, the vertical turn-up is also performed in the case of a warm roof package as in the example below. To check the compatibility of the insulating materials with the thermal insulation package, refer to the synoptic table described above.



Warm roof with EPS (Expanded polystyrene) insulation

1. INDEVER/ECOVER Primer
2. TECTENE BV STRIP vapour barrier
3. EPS thermal insulation
4. **POLYFOIL TRIATEX** membrane mechanically fixed
5. Vertical surface with **POLYFOIL TRIATEX** membrane sealed by hot air
6. Sheet metal crowning elements

MECHANICAL FIXING ON VERTICAL SURFACE UNDER SELVEDGE

Vertical application without the use of mechanical fixings can be performed up to a height of 30 cm from the waterproofing level of the floor. Above 30 cm in height, mechanical fixings will be necessary under the selvedge every 25 cm.

DRAIN

1. Positioning and fixing the drain.
Lay the **POLYFOIL TRIATEX** membrane



2. Cut the **POLYFOIL TRIATEX** around the drain hole.



3. Remove the section of **POLYFOIL TRIATEX** to uncover the drain.



4. Then heat-seal the **POLYFOIL TRIATEX** around the circumference of the drain.



5. Perform a second seal, outside the previous one, still following the circumference of the drain.



6. Heat-seal the perimeter of the piece of **POLYFOIL TRIATEX** membrane.



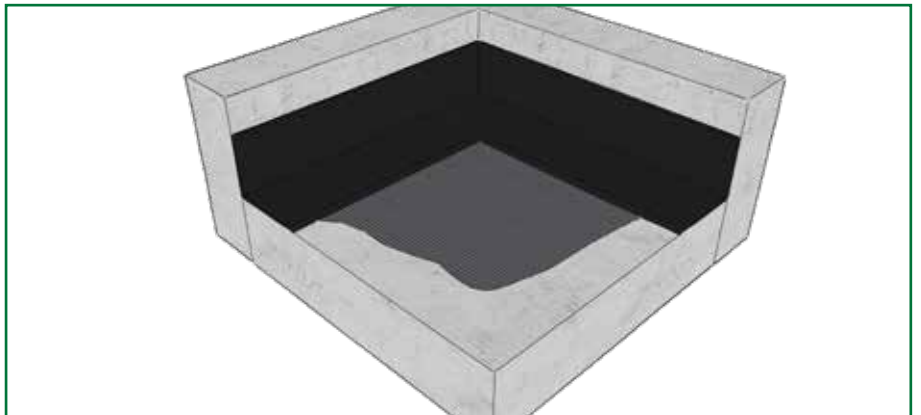
Glue application

CORNER DETAILS

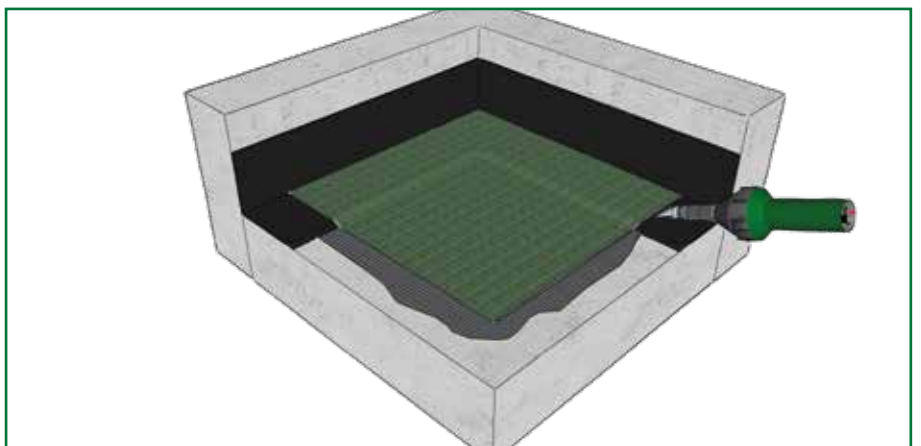
Creating internal and external corners is a very simple procedure and follows the basic rules of applying polymer-bitumen membranes. For the sequence in which the corner turn-ups are made please see the Index Spa "GUIDE TO LAYING MEMBRANES WITH COLD ADHESIVE"

1. Apply a 25cm wide strip of self-heat-adhesive membrane to the corner.

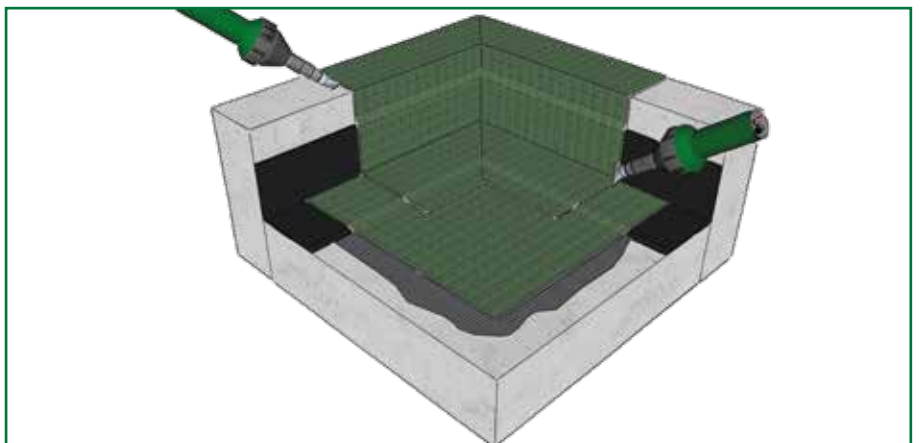
Spread MASTIPOL adhesive on the surface with serrated squeegee.



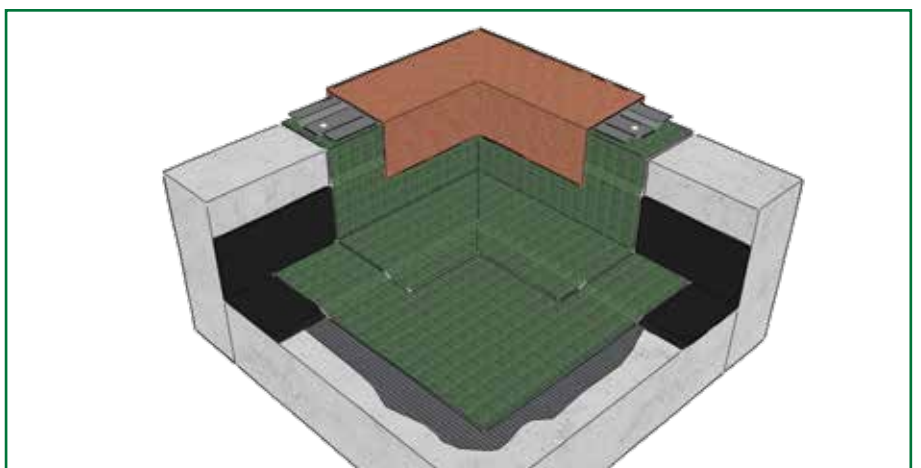
2. Lay the **POLYFOIL TRIATEX** membrane over the MASTIPOL adhesive and seal the overlaps with hot air.



3. Apply **POLYFOIL TRIATEX** vertically and seal the top of the turn up with hot air.



4. Apply the perimeter covering for mechanical fixing.



TECHNICAL CHARACTERISTICS

POLYFOIL TRIATEX			
	Standard	T	
Reinforcement			Heavy composite reinforcement rot proof
Thickness	EN 1849-1	±0,2	2.5 mm
Roll size	EN 1848-1	≥	1.2x15 m
Watertightness	EN 1928 - B	≥	60 kPa
Peel resistance L/T	EN 12316-1	-20 N	NPD
Shear resistance L/T	EN 12317-1	-20%	1100 / 1100 N/50 mm
Maximum tensile force L/T	EN 12311-1	-20%	1200 / 1200 N/50 mm
Elongation L/T	EN 12311-1	-15% V.A.	50/50%
Resistance to impact	EN 12691 - A		1500 mm
Resistance to static loading	EN 12730 - A		25 kg
Resistance to tearing (nail shank) L/T	EN 12310-1	-30%	250/250 N
Root resistance	EN 13948		NPD
Flexibility to low temp. • after ageing	EN 1109 EN 1296-1109		-35°C NPD
Flow resist. at high temp. • after ageing	EN 1110 EN 1296-1110		120°C NPD
Reaction to fire Euroclass	EN 13501-1		E
External fire performance	EN 13501-5		B _{roof} (t2) (1)
Hail impact resistance characteristics			
Hail impact resistance (2)	EN 13583		Rigid support 37 m/s Soft support 46 m/s

Compliant with EN 13707 in terms of the resistance factor to steam penetration for reinforced polymer-bitumen membranes, the value of $\mu = 20\,000$ may be considered, unless declared otherwise.

(1) ISTITUTO GIORDANO Certification: performed in combination with the STRONG REFLEX AB paint.

(2) ISTITUTO GIORDANO Certification.

The numerous possible uses and the possible interference of conditions or elements beyond our control, we assume no responsibility regarding the results which are obtained. The purchasers, of their own accord and under their own responsibility, must establish the suitability of the product for the envisaged use.

PRODUCT FINISHING

"TEXFLAMINA" PP NON-WOVEN. Multifunction, protection finishing material made up of a non-woven flame-melting synthetic-fibre fabric, coupled to the upper face of the membrane. It prevents coils from sticking to the roll, improves foot traffic resistance during installation, enhances the adhesion of paints, glues and extends their life.

The figures shown are average indicative figures relevant to current production and may be changed or updated by INDEX at any time without previous warning. The advice and technical information provided, is what results from our best knowledge regarding the properties and the use of the product. Considering

• FOR ANY FURTHER INFORMATION OR ADVICE ON PARTICULAR APPLICATIONS, CONTACT OUR TECHNICAL OFFICE • IN ORDER TO CORRECTLY USE OUR PRODUCTS, REFER TO INDEX TECHNICAL SPECIFICATIONS •

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