

TECTENE BV STRIP EP ALU POLYESTER

TECTENE BV STRIP EP/V

TECTENE BV BISTRIP EP ALU POLYESTER

TECTENE BV BISTRIP EP/V

HEAT-ADHESIVE VAPOUR BARRIERS IN ELASTOPLASTOMERIC POLYMER DISTILLED BITUMEN EQUIPPED WITH ELASTOMERIC HEAT-ADHESIVE STRIPS SPREAD ON THE UPPER FACE OF THE MEMBRANE (such as STRIP), OR ON BOTH FACES (such as BISTRIP) FOR BONDING THE INSULATING PANELS

GRANTS *LEED* CREDITS

CATEGORY	CHARACTERISTICS	ENVIRONMENTAL	METHOD OF USE
EP S SPECIAL ELASTOPLASTOMERIC FOR SPECIFIC USES	WATERPROOF VAPOUR BARRIER SUPER-ADHESIVE REACTION TO FIRE	ECO GREEN ASBESTOS FREE TAR FREE CHLORINE FREE RECYCLABLE NON DANGEROUS WASTE EXHAUSTED OIL FREE	INDIRECT HEAT APPLICATION NAILING

1 PROBLEM

ROOF	<input checked="" type="checkbox"/> Flat	<input checked="" type="checkbox"/> Sloped
SUPPORT	<input checked="" type="checkbox"/> Concrete	<input checked="" type="checkbox"/> Timber
	<input checked="" type="checkbox"/> Old covering	<input type="checkbox"/> Thermal insul.

HOW TO BOND THE THERMAL INSULATION, INCLUDING EXPANDED POLYSTYRENE, ONTO THE VAPOUR BARRIER, AVOIDING THE USE OF MELTED OXIDIZED BITUMEN, NAILS OR HAZARDOUS AND HARMFUL MATERIALS

It is not always possible to fix the thermal insulation layer with mechanical fixings and melted bitumen; both for practical reasons and for safety reasons this fixing method is less and less used. Bonding the expanded polystyrene insulating panels onto cooled melted bitumen is a difficult operation to carry out, which often causes melting of the panel or insufficient adhesion. The alternative, using cold adhesives, besides causing the emission of solvents and the production of waste which is difficult to dispose of, entails a long setting time, which favours the cold accumulation of the insulating panels towards the geometrical centre of the roof, causing undulations and stretching of the covering in proximity to the edges of the roof and raised parts.

2 SOLUTION

TECTENE BV

TECTENE BV EP is a vapour barrier which has the upper face already spread with adhesive. It needs only to be activated with the heat of a flame to make it immediately effective. Compared with normal bitumen, the adhesive remains effective for longer, even at temperatures close to zero, leaving the operator time to apply the polystyrene panel without, however, causing it to melt, but then, once cooling has taken place, the adhesive has already set and grips the panel tenaciously. **TECTENE BV EP** is a waterproofing membrane in polymer distilled bitumen, based on distilled bitumen selected for industrial use with a high content of elastomeric and plastomeric polymers, which create a "phase inversion" bond whose continuous phase is formed of the polymer in which the bitumen is dispersed, with the characteristics being determined by its polymeric nature rather

than by the bitumen, even though this constitutes the main ingredient. The properties of the bitumen such as durability and resistance to high and low temperatures, are therefore increased, while the bitumen's already excellent qualities of adhesion, water resistance and impermeability to water vapour remain unaltered. **TECTENE BV STRIP EP/V** and **TECTENE BV BISTRIP EP/V** are strengthened with glass felt reinforced in the longitudinal direction, a rotproof material which gives the membrane high dimensional stability, while **ALU POLYESTER** are reinforced with aluminium foil, which provides an absolute barrier to the passage of vapour, combined with polyester non-woven fabric composite, stabilized with glass fibre, which provides properties of elasticity and resistance to perforation.

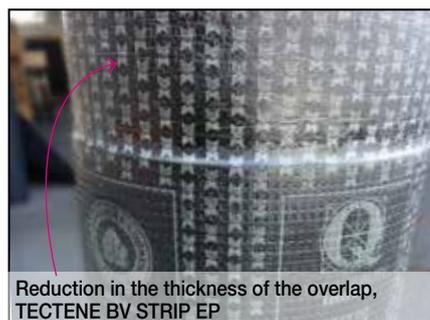
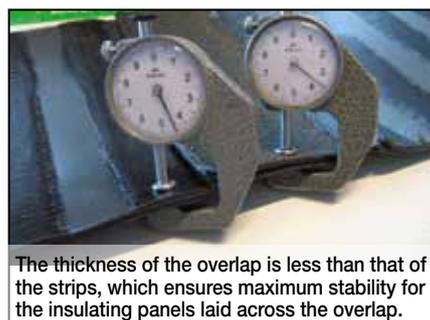
The lower face of **TECTENE BV STRIP** membranes is coated with the hot-melt plastic film Flamina.

The upper face is spread over 40% of its surface with self-heat-adhesive strips, protected by a special high-retraction hot-melt film, consisting of a special hot-melt bituminous adhesive based on tackifying elastomers and resins, which once activated by heat has a sufficiently long setting time to allow bonding polystyrene panels even at temperatures close to zero. The adhesive is strong and elastic and anchors the panel securely. In addition to expanded polystyrene and extruded expanded polystyrene, whether in panels or in THERMOBASE rolls, the following can also be bonded to **TECTENE BV EP**: panels and rolls of expanded polyurethane coated with bituminized felt paper, with bituminized glass fibre, with aluminium-coated paper whether on the paper or on the aluminium-coat-

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

EN 13970 - BITUMINOUS LAYERS FOR VAPOUR CONTROL

- TECTENE BV STRIP EP ALU POLYESTER
- TECTENE BV STRIP EP/V
- TECTENE BV BISTRIP EP ALU POLYESTER
- TECTENE BV BISTRIP EP/V



ADVANTAGES

- Even expanded polystyrene can be flame-applied.
- The self-heat-adhesive strips enable greater adhesion.

ed face. A further and exclusive characteristic of the membrane consists in the overlap area, produced with a reduced thickness compared with the rest of the sheet, so that, once the overlap has been carried out, its total thickness does not exceed that of the adhesive strips, thus avoiding the "see-saw effect" of insulating panels which have been placed astride each other.

BISTRIP versions, however, have both faces spread with adhesive strips and are produced to enable bonding semi-independently of the vapour barrier on the laying surface and, given the high adhesion of the elastomeric adhesive strips, this does not require the coat of primer.

APPLICATION FIELDS

TECTENE BV STRIP EP is used as a vapour barrier when it is intended to insulate the roof with expanded polystyrene panels. It can also be used to bond THERMOBASE PSE insulation, which is supplied in rolls, or other forms of insulation when it is not convenient to use melted bitumen or adhesives.

With **TECTENE BV STRIP EP**, the vapour bar-

rier and the adhesive for the insulating layer are laid in a single layer. There is no need for boilers, bags of bitumen or buckets of adhesive.

It avoids odours, fumes and solvent vapours, and scrap and worksite waste are not produced.

TECTENE BV STRIP EP ALU POLYESTER is used as a vapour barrier for roofs over particularly humid spaces where the relative humidity at 20°C exceeds 80%.

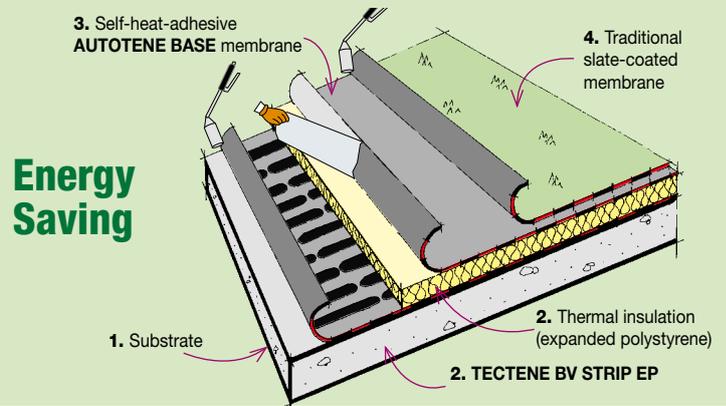
TECTENE BV STRIP EP constitutes the first layer of the waterproofing system called "**Energy Saving**", which enables the economically advantageous use of thermal insulation in expanded polystyrene, with lower energy expenditure and reduced environmental impact.

The system is used on both flat and sloping roofs. On the latter, for gradients of over 15%, bonding is integrated with me-

chanical fixing methods and/or strips inserted between the layers.

The same applies in particularly windy areas.

BISTRIP versions are used when operating on damp substrates, as when repairing roofs which still trap moisture, on which it is desired to lay new insulation but without puncturing the vapour barrier with a mechanical fixing, or in new work on roofs over spaces with a high production of water vapour, to allow the vapour to disperse.



LAYING DETAILS

1



Flame-laying of the lower face of TECTENE BV STRIP EP

2



Flame-laying of the lateral and end-to-end overlaps so as to ensure perfect sealing against the passage of vapour

3



Torching of the protective film

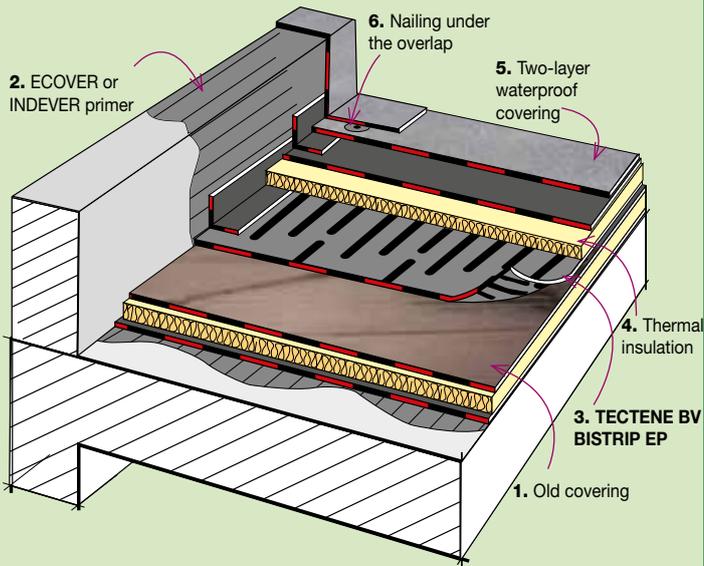


During the first few seconds of torching, the surface initially turns matt.

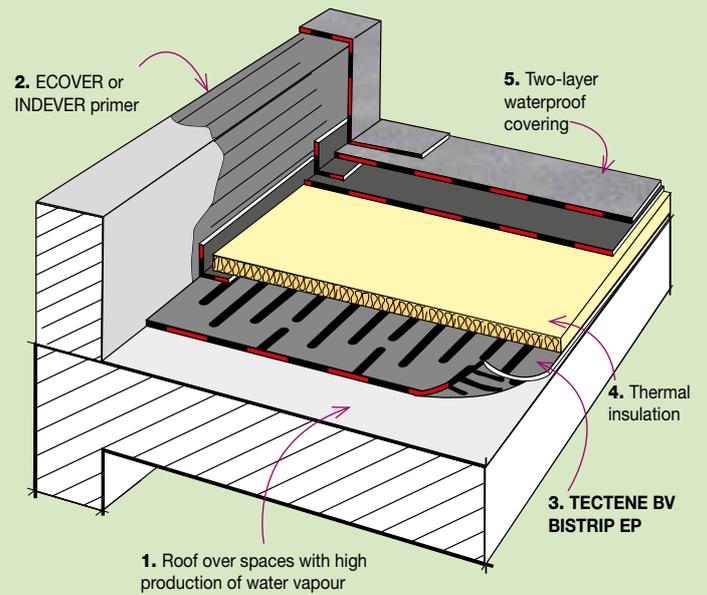


As torching continues, the heat-adhesive strips will assume a semi-liquid, glossy consistency: **the surface is now ready to receive the panels or rolls of insulation.**

Energy rehabilitation of an old roof



Vapour barrier over spaces with high humidity



LAYING DETAILS

4



The insulation panels laid on the surface just torched must be bonded to the TECTENE BV STRIP EP by the pressure of the operator simply treading on them (this must be done over the entire surface of the panel).

CAUTION

Increase the torching area so that the next operation does not lift the panel already laid.



The THERMOBASE rolls which are unrolled on the surface just torched must be bonded to the TECTENE BV STRIP EP by pressure over the whole surface of the roll, exerted by the operator simply treading on them (this must be done over the entire surface of the panel or roll).

**DETAIL OF THE
SELF-HEAT-ADHESIVE MIX OF
STRIPS OF TECTENE BV STRIP EP
and TECTENE BV BISTRIP EP**

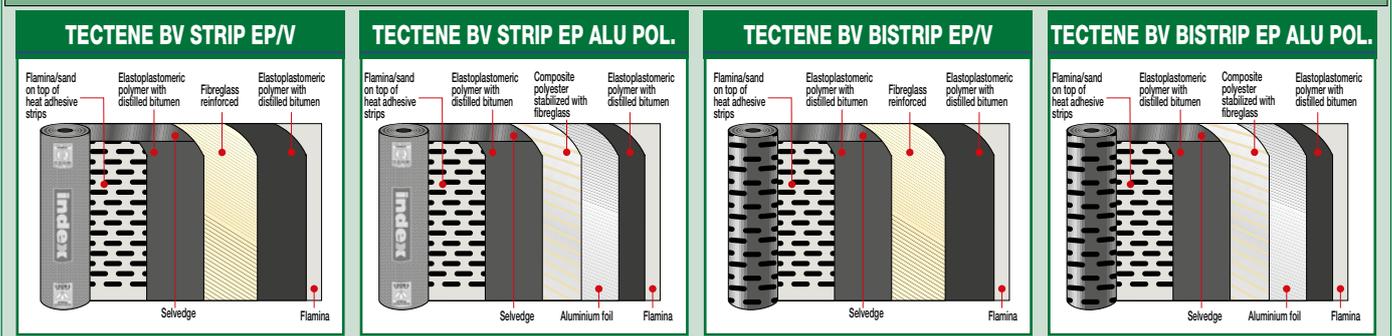


TECHNICAL CHARACTERISTICS

	Standard	T	TECTENE BV STRIP EP/V	TECTENE BV STRIP EP ALU POLYESTER	TECTENE BV BISTRIP EP/V	TECTENE BV BISTRIP EP ALU POLYESTER
Reinforcement			Glass fibre	Polyester non-woven fabric comp. stabilized with glass fibre and Aluminium foil (12 μ)	Glass fibre	Polyester non-woven fabric comp. stabilized with glass fibre and Aluminium foil (12 μ)
Thickness	EN 1849-1	±0,2	3 mm	3 mm	3 mm	3 mm
Roll dimensions	EN 1848-1	-1%	1×10 m	1×10 m	1×10 m	1×10 m
Watertightness	EN 1928 - B	≥	60 kPa	60 kPa	60 kPa	60 kPa
Resistance of joints to separation	EN 12316-1	-20 N	NPD	NPD	NPD	NPD
Maximum lateral/end tensile force	EN 12311-1	-20%	300/200 N/50 mm	250/120 N/50 mm	300/200 N/50 mm	250/120 N/50 mm
Lateral/end tensile elongation	EN 12311-1	-15% V.A.	2/2%	15/20%	2/2%	15/20%
Dynamic puncture resistance	EN 12691 - A		NPD	NPD	NPD	NPD
Lateral/end nail tear strength	EN 12310-1	-30%	70/70 N	100/100 N	70/70 N	100/100 N
Cold flexibility	EN 1109	≤	-15°C	-15°C	-15°C	-15°C
High temperature sliding resistance	EN 1110	≥	100°C	100°C	100°C	100°C
Permeability to water vapour • after ageing	EN 1931 EN 1296-1931	-20% -20%	μ = 100 000 NPD	μ = 1 500 000 NPD	μ = 100 000 NPD	μ = 1 500 000 NPD
Euroclass reaction to fire	EN 13501-1		E	E	E	E
External fire behaviour	EN 13501-5		F roof	F roof	F roof	F roof
Specific properties of resistance to wind lifting (EN 16002)						
with expanded polystyrene ≥100	EN 16002		Δ _{adm} = 4 250 N/m ²	Δ _{adm} = 4 250 N/m ²	Δ _{adm} = 4 250 N/m ²	Δ _{adm} = 4 250 N/m ²
with extruded expanded polystyrene	EN 16002		Δ _{adm} = 4 250 N/m ²	Δ _{adm} = 4 250 N/m ²	Δ _{adm} = 4 250 N/m ²	Δ _{adm} = 4 250 N/m ²
with polyurethane	EN 16002		Δ _{adm} = 10 000 N/m ²	Δ _{adm} = 10 000 N/m ²	Δ _{adm} = 10 000 N/m ²	Δ _{adm} = 10 000 N/m ²
Thermal characteristics						
Thermal conductivity			0.2 W/mK	0.2 W/mK	0.2 W/mK	0.2 W/mK
Thermal capacity			3.90 KJ/K	3.90 KJ/K	3.90 KJ/K	3.90 KJ/K

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.

COMPOSITION OF THE MEMBRANE



PRODUCT FINISHING



“FLAMINA” PE FOIL. Plastic protection film helping prevent coils from sticking to the roll. As it withdraws under the action of the flame right during its installation, it signals the best melting point in order to correctly glue the membrane to the brackets and rises. When not heated, it can be used as a sliding layer.



FLAMINA/SAND ON TOP OF HEAT ADHESIVE STRIPS

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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Construction Systems and Products

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