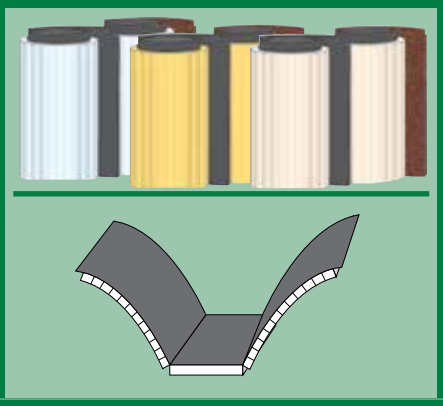
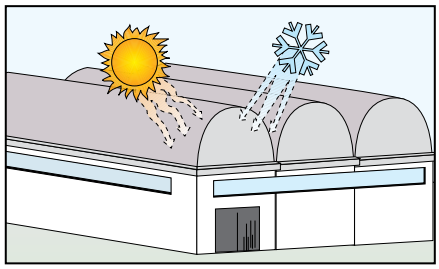


THERMOBASE
THERMOBASE TEGOLA
ISOPREF PSE

PREFABRICATED THERMAL INSULATION COUPLED WITH WATERPROOF MEMBRANE

GRANTS *LEED* CREDITS

1 PROBLEM



HOW TO INSULATE ROOFS WITH A COMPLEX GEOMETRY, LIMIT THE DIMENSIONAL CHANGES OF THERMAL INSULATORS AND EXPEDITE LAYING OPERATIONS ALSO ON HEAT-SENSITIVE INSULATORS

THERMOBASE and ISOPREF thermal insulators aim to solve the problems mentioned above.

- They both reduce laying operations as they are pre-coupled to a polymer-distilled bitumen waterproofing membrane and are both predisposed for coupling on heat-sensitive expanded polystyrene insulation.
- They coat surfaces with a complex geometry, both concave and convex, more evenly than panels of a standard size. The fractioning into strips of the thermal insulators used for the various versions of THERMOBASE allows the dimensional changes to be subdivided, thus limiting their extent while avoiding having to strain the waterproof layer above.

2 SOLUTION

THERMOBASE is thermal insulation in rolls made of strips of insulating material, hot bonded to a polymer-distilled bitumen waterproof membrane.
The insulation is produced in three versions:

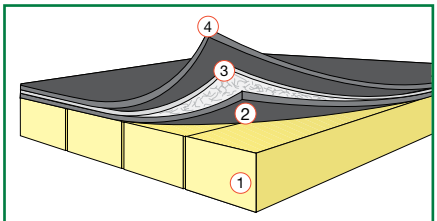
- Self-extinguishing extruded expanded polystyrene
- Self-extinguishing sintered expanded polystyrene
- Continuously laminated self-extinguishing expanded polyurethane

The waterproof membrane which covers the insulation may be:

- Reinforced with glass mat
- Reinforced with "non-woven" polyester fabric, stabilised with fibreglass, without "shrinkage"

THERMOBASE TEGOLA is produced specifically for undertile insulation. In this case the four types of insulation are bonded to a polyester-reinforced waterproof membrane coated with slate chippings.
THERMOBASE is manufactured on a production line which has three cutting units for insulating panels. The thin strips of insulation are continuously bonded to the waterproof layer. Perfect lay-out of the strips and the thickness of the material are constantly controlled.
THERMOBASE is suitable for insulating and waterproofing roofs of buildings. It combines waterproofing and insulation in a single product. However, it may also be successfully used for insulating wall inter-spaces and underground premises where an efficient vapour barrier is required. In this case the waterproof layer, facing the interior, acts as a vapour barrier.
THERMOBASE solves the problems of both installers and planners:

- **Flexible:** it follows all shapes of laying surfaces. Differently shaped roofs can be accurately covered without leaving poorly adhered "bridge zones".

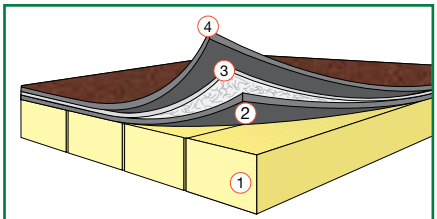


1. Strips in expanded polystyrene, extruded polystyrene, polyurethane, rock wool with oriented fibres.
2. Distilled bitumen polymer.
3. Reinforcement in fibreglass or in non-woven polyester fabric stabilised with fibreglass.
4. Distilled bitumen polymer

- **Stable:** the insulation is cut into thin strips. Its thermal expansion and contraction is uniformly distributed and is less compared to the panel type. Consequently, the waterproof layer is less fatigue stressed.
- **Quick to lay:** it is in rolls, two layers can be laid in a single quick operation.
- **Immediately waterproof:** just flame-bond the overlapping edges to obtain an immediately waterproof layer which protects the insulation from unexpected heavy showers. For panels, without edges, flame-bond the sealing strips over the element coupling lines for the same waterproofing effect.

THERMOBASE is compatible with polymer-distilled bitumen waterproofing coatings and with multi-layer bitumen coatings.
The on-site bonding of subsequent layers is made easy thanks to the very thick polymer-distilled bitumen membrane with high adhesive power.
Therefore, the waterproofing layer can be left visible over **THERMOBASE**. The wind won't detach it, the gravel ballasting layer is no longer necessary and light structures not designed to bear excessive loads can easily be waterproofed.

THERMOBASE TEGOLA is the version designed to solve the problems of under-tile waterproofing and thermal insulation.
It can be produced with all three types of insulation: expanded polystyrene, extruded polystyrene and expanded polyurethane. The top waterproof membrane consists of polymer-bitumen reinforced with "non-woven" polyester fabric stabilised with fibreglass. The visible face of the membrane is treated with slate mineral chippings hot bonded at a temperature of 180°C, with the exception of an 8 cm slate-free lateral strip - the latter allows sealing of the overlapping edge, usually included on one side of the heat insulation. If the product has no edge, two 8 cm side strips of the membrane are left slate-free to facilitate sealing the connecting strip in these cases too. The mineral coating serves as an anti-slip surface and provides solid anchorage for cement mortar when tiles are laid directly on the insulation.



1. Strips
2. Distilled bitumen polymer.
3. Reinforcement
4. Polymer-distilled bitumen with hot-bonded slate chippings

Once a seamless joint is obtained with the edge or with the flame-sealed connecting strips, you immediately obtain a waterproof, resistant surface. This surface will protect the work against sudden rain and enables the tile layer to be laid very quickly.
THERMOBASE TEGOLA guarantees efficient heat insulation and reliable waterproofing protection even in the case of shifted or broken tiles. For the laying systems, please consult our specific technical documentation (see technical specifications no. 7).

THERMOBASE PSE

Marking

CE

Reference standard
EN13163

THERMOBASE TEGOLA PSE

CHARACTERISTICS				ENVIRONRMENTAL							METHOD OF USE			
THERMAL INSULATION	ACOUSTIC INSULATION	WATERPROOF	REACTION TO FIRE	ECO GREEN	ASBESTOS FREE	TAR FREE	CHLORINE FREE	RECYCLABLE	NON DANGEROUS WASTE	EXHAUSTED OIL FREE	APPLY BY MECHANICAL FIXING	APPLY BY COLD ADHESIVE	LAYING WITH TECTENE BV STRIP	LAYING WITH SELFTENE BV HE

DESCRIPTION

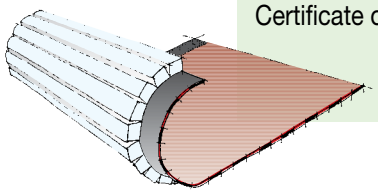
THERMOBASE PSE is a panel cut into 50 mm strips, of uniform thickness, made of self-extinguishing sintered expanded polystyrene whose λ is of 0.037 W/mK for type 80 and 0.035 W/mK for type 120, coupled hot to a waterproofing membrane in polymer-distilled bitumen. A flame can thus be used on the top surface without burning the insulator.

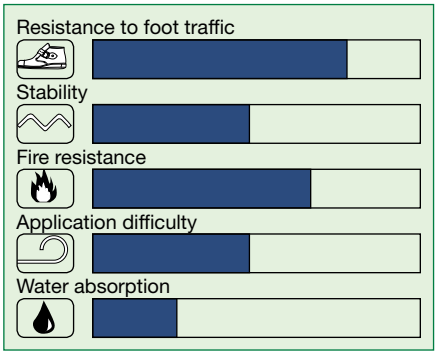
THERMOBASE PSE offers strong insulation, is very flexible, resistant to compression and can be used both under exposed coverings and under heavy protection. It offers good dimensional stability. Also in the case of damp it undergoes negligible dimensional changes because it absorbs very little water.

THERMOBASE PSE is resistant to compression. It is made of high density expanded polystyrene, type 120 can be used under terraces which will be walked on. The type 80 type should be used under visible surfaces. Sintered expanded polystyrene is an inexpensive insulation product that has been tested for years on roofs; it is prefabricated by joining it with the waterproof membrane, reducing its sensitivity to the heat of the flame used to lay the waterproof covering, saving on insulation and laying costs. **THERMOBASE PSE** may be bonded to the substrate with the traditional system of spreading sufficiently cooled molten oxidised bitumen or with the cold bituminous adhesive MASTICOLL in case the application is under heavy protection, while it must be nailed if the layers include an exposed covering. The innovative flame-gluing system on the multipurpose vapour barrier TECTENE BV STRIP is more recent (further information on laying the insulation material can be consulted in the technical documents of INDEX).

After securing the insulation on the laying surface and accurately lining up the elements, the overlapping edges should be flame bonded. Subsequently the second waterproofing layer is flame bonded onto the surface astride the sealing strips.

ISOBASE TEGOLA PSE is the version self-protected with mineral slate, designed for under-tile laying.





CERTIFICATION

"Güteschutzgemeinschaft hartschaum"

Certificate of conformity to EN 13163

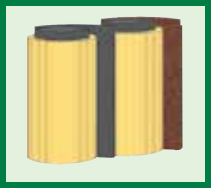
TECHNICAL CHARACTERISTICS

	Regulation	THERMOBASE PSE 80									THERMOBASE PSE 120								
Intended use		- for all uses -									- for all uses -								
Designation code	**EN 13163**	EPS-EN 13163-T(2)-L(3)-W(3)-S(5)-P(30)-DS(N)5-BS125-CS(10)80									EPS-EN 13163-T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)5-BS170-CS(10)120								
Compression strength 10% compression	**EN 826**	≥80 KPa [CS(10)80]									≥120 KPa [CS(10)120]								
Dimensional stability 48 h at 23°C at 90% R.H.	**EN 1604**	±0.5% [DS(N)5]									±0.5% [DS(N)5]								
Bending strength	**EN 12089**	≥125 KPa [BS125]									≥170 KPa [BS170]								
Perpendicular tensile strength of faces		–									–								
Thermal conductivity λ	**EN 12667**	0.037 W/mK									0.035 W/mK								
Thickness **T(1)** (mm)		**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**
Thermal resistance R_D(m²K/W)		0.55	0.82	1.09	1.36	1.63	1.90	2.17	2.44	2.71	0.58	0.87	1.16	1.44	1.73	2.01	2.30	2.58	2.87
Thermal capacity (KJ/K·m²)		0.43	0.65	0.86	1.09	1.30	1.51	1.73	1.94	2.16	0.53	0.79	1.06	1.32	1.58	1.85	2.11	2.38	2.64
Long term water absorption by immersion	**EN 12087**	<5%									<5%								
Water vapour transmission	**EN 12086**	μ = 30÷70									μ = 30÷70								
Reaction to fire	**EN 13501-1**	Euroclass E_{d2}									Euroclass E_{d2}								
Specific characteristics of the polymer-distilled bitumen membrane																			
Impermeability	**EN 1928-B**	60 kPa									60 kPa								
Permeability to vapour	**EN 1931**	μ = 20,000									μ = 20,000								
Thermal conductivity		0.2 W/mK									0.2 W/mK								
Type		**V2**	**V3**	**P3**	**P4**	**MIN P3.5**		**MIN P4.0**		**MIN P4.5**	**V2**	**V3**	**P3**	**P4**	**MIN P3.5**		**MIN P4.0**		**MIN P4.5**
Thermal capacity (KJ/K·m²)		2.60	3.90	3.90	5.20	4.20		4.80		5.40	2.60	3.90	3.90	5.20	4.20		4.80		5.40

Acoustic insulation index. Acoustic absorption index. Impact noise transmission index. Durability of reaction to fire, thermal resistance, compression resistance. **NPD**

All THERMOBASE versions can be ordered without the side edge and are therefore supplied with an overlapping strip in polymer-bitumen membrane with the same type of cover as the insulation, in 0.14.14×10 metre rolls.

THERMOBASE PSE/EX



Marking

CE

Reference standard
EN13164

THERMOBASE TEGOLA PSE/EX

CHARACTERISTICS				ENVIRONRMENTAL							METHOD OF USE			
THERMAL INSULATION	ACOUSTIC INSULATION	WATERPROOF	REACTION TO FIRE	ECO GREEN	ASBESTOS FREE	TAR FREE	CHLORINE FREE	RECYCLABLE	NON DANGEROUS WASTE	EXHAUSTED OIL FREE	APPLY BY MECHANICAL FIXING	APPLY BY COLD ADHESIVE	LAYING WITH TECTENE BV STRIP	LAYING WITH SELFTENE BV HE

DESCRIPTION

THERMOBASE PSE/EX is a panel cut into 50 mm strips, of uniform thickness, made of single layer self-extinguishing extruded expanded polystyrene coupled hot to a waterproofing membrane in polymer-distilled bitumen. A flame can thus be used on the top surface without burning the insulator.

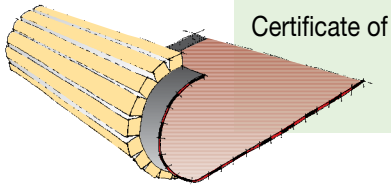
THERMOBASE PSE/EX is economical because it has a high specific thermal resistance and compared to other insulation products, it can be used in thinner layers. It offers good dimensional stability. Also in the case of damp it undergoes negligible dimensional changes because it absorbs very little water.

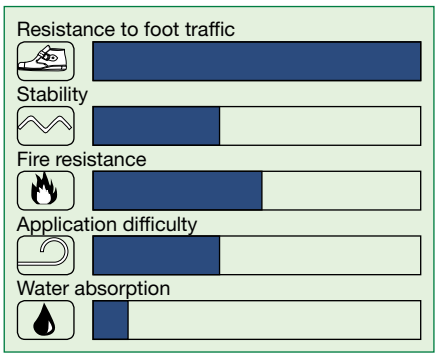
THERMOBASE PSE/EX is extremely resistant to compression. It is made of high density extruded polystyrene and is ideal for use under terraces which will be walked on, driven over or ballasted with gravel.

It is prefabricated by joining it with the waterproof membrane, reducing its sensitivity to the heat of the flame used to lay the waterproof covering, saving on insulation and laying costs. **THERMOBASE PSE/EX** may be bonded to the substrate with the traditional system of spreading sufficiently cooled molten oxidised bitumen or with the cold bituminous adhesive MASTICOLL in case the application is under heavy protection, while it must be nailed if the layers include an exposed covering. The innovative flame-gluing system on the multipurpose vapour barrier TECTENE BV STRIP is more recent (further information on laying the insulation material can be consulted in the technical documents of INDEX).

After securing the insulation on the laying surface and accurately lining up the elements, the overlapping edges should be flame bonded. Subsequently the second waterproofing layer is flame bonded onto the surface astride the sealing strips.

THERMOBASE TEGOLA PSE/EX is the version self-protected with mineral slate, designed for under-tile laying.





CERTIFICATION

"Güteschutzgemeinschaft hartschaum"

Certificate of conformity to EN 13164

TECHNICAL CHARACTERISTICS

	Regulation	THERMOBASE PSE/EX						
Intended use		- for all uses -						
Designation code	**EN 13164**	XPS EN13164-T(2)-DS(TH)-CS(10/Y)250-TR200-WL(T)1,5						
Compression strength 10% compression	**EN 826**	≥250 KPa 【CS(10/Y)250】						
Dimensional stability 48 h at 23°C at 90% R.H.	**EN 1604**	DS(TH)						
Bending strength	**EN 12089**	–						
Perpendicular tensile strength of faces		–						
Thermal conductivity λ	**EN 12667**	0.033 W/mK				0.034 W/mK		0.036 W/mK
Thickness **T(2)** (mm)		**30**		**40**		**50**	**60**	**80**
Thermal resistance R_D(m²K/W)		0.92		1.22		1.48	1.78	2.23
Thermal capacity (KJ/K·m²)		1.15		1.54		1.92	2.30	3.07
Long term water absorption by immersion	**EN 12087**	≤1.5% 【WL(T)1.5】						
Water vapour transmission	**EN 12086**	μ = 80						
Reaction to fire	**EN 13501-1**	Euroclass E_{d2}						
Specific characteristics of the polymer-distilled bitumen membrane								
Impermeability	**EN 1928-B**	60 kPa						
Permeability to vapour	**EN 1931**	μ = 20,000						
Thermal conductivity		0.2 W/mK						
Type		**V2**	**V3**	**P3**	**P4**	**MIN P3.5**	**MIN P4.0**	**MIN P4.5**
Thermal capacity (KJ/K·m²)		2.60	3.90	3.90	5.20	4.20	4.80	5.40

Acoustic insulation index. Acoustic absorption index. Impact noise transmission index. Durability of reaction to fire, thermal resistance, compression resistance. **NPD**

All THERMOBASE versions can be ordered without the side edge and are therefore supplied with an overlapping strip in polymer-bitumen membrane with the same type of cover as the insulation, in 0.14.14×10 metre rolls.

THERMOBASE
• PUR BIPAPER
• PUR BIGLASS

Marking

CE

Reference standard
EN13165

THERMOBASE TEGOLA
• PUR BIPAPER
• PUR BIGLASS

CHARACTERISTICS			ENVIRONRMENTAL							METHOD OF USE				
THERMAL INSULATION	ACOUSTIC INSULATION	WATERPROOFING	ECO GREEN	ASBESTOS FREE	TAR FREE	CHLORINE FREE	RECYCLABLE	NON DANGEROUS WASTE	EXHAUSTED OIL FREE	APPLY BY MECHANICAL FIXING	APPLY BY COLD ADHESIVE	LAYING WITH MOLTEN BLOWN BITUMEN	LAYING WITH PROMINENT	LAYING WITH SELFTENE BV HE

DESCRIPTION

THERMOBASE PUR is a panel cut into 50 mm strips, of uniform thickness, made of self-extinguishing polyurethane foam, rolled continuously between two fibreglass mats in the version **THERMOBASE PUR BIPAPER** or between two polythene coated glass mat layers in the version **THERMOBASE PUR BIGLASS**, coupled hot to a waterproofing membrane in polymer-distilled bitumen. A flame can thus be used on the top surface without burning the insulator.

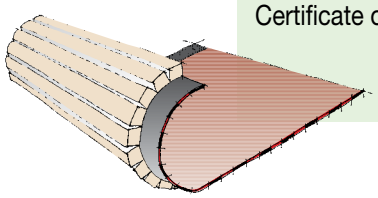
THERMOBASE PUR, given the same thickness, has the highest thermal resistance that, in this respect, puts it at the top of the range of products available.

THERMOBASE PUR is resistant to compression as it is made from high density foam, and can be applied on terraces to be walked on.

The polyurethane foam of **ISOBASE PUR** is heat-resistant (+100°C) and for short periods it can withstand peaks of 250°C. This makes it the insulator of choice to be flame-glued in awkward conditions of steep pitching or in similar situations. It may be bonded to the substrate with the traditional system, on a spreading of oxidised bitumen or with the cold bituminous adhesive MASTICOLL or, more conveniently, with the innovative flame laying system on the multipurpose vapour barrier PROMINENT, which is to be preferred especially on pitched roofs. Mechanical fixing is preferable when applying on timber or fretted metal decks (further information on laying the insulation material can be consulted in the technical documents of INDEX).

After securing the insulation on the laying surface and accurately lining up the elements, the overlapping edges should be flame bonded. Subsequently the second waterproofing layer is flame bonded onto the surface astride the sealing strips.

ISOBASE TEGOLA PUR is the version self-protected with mineral slate, designed for under-tile laying.



Resistance to foot traffic

Stability

Fire resistance

Application difficulty

Water absorption

CERTIFICATION

"Güteschutzgemeinschaft hartschaum"

Certificate of conformity to EN 13165

TECHNICAL CHARACTERISTICS

	Regulation	THERMOBASE PUR						
Intended use		- for all uses -						
Designation code	**EN 13164**	PUR EN13165-T(2)-DS(TH)2-CS(10/Y)150-TR40						
Compression strength 10% compression	**EN 826**	≥150 KPa [CS(10/Y)150]						
Dimensional stability 48 h at 23°C at 90% R.H.	**EN 1604**	DS(TH)2						
Bending strength	**EN 12089**	–						
Perpendicular tensile strength of faces		≥40 KPa [TR40]						
Thermal conductivity λ	**EN 12667**	0.028 W/mK						
Thickness **T(2)** (mm)		30	40	50	60 (*)			
Thermal resistance R_D(m²K/W)		1.08	1.44	1.80	2.16			
Thermal capacity (KJ/K·m²)		1.34	1.79	2.24	2.69			
Long term water absorption by immersion	**EN 12087**	<2%						
Water vapour transmission	**EN 12086**	μ = 100						
Reaction to fire	**EN 13501-1**	Euroclass F						
Specific characteristics of the polymer-distilled bitumen membrane								
Impermeability	**EN 1928-B**	60 kPa						
Permeability to vapour	**EN 1931**	μ = 20,000						
Thermal conductivity		0.2 W/mK						
Type		**V2**	**V3**	**P3**	**P4**	**MIN P3.5**	**MIN P4.0**	**MIN P4.5**
Thermal capacity (KJ/K·m²)		2.60	3.90	3.90	5.20	4.20	4.80	5.40

Acoustic insulation index. Acoustic absorption index. Impact noise transmission index. Durability of reaction to fire, thermal resistance, compression resistance. **NPD**

(*) available only for bitumen fibreglass mat finish.

All THERMOBASE versions can be ordered without the side edge and are therefore supplied with an overlapping strip in polymer-bitumen membrane with the same type of cover as the insulation, in 0.14.14×10 metre rolls.

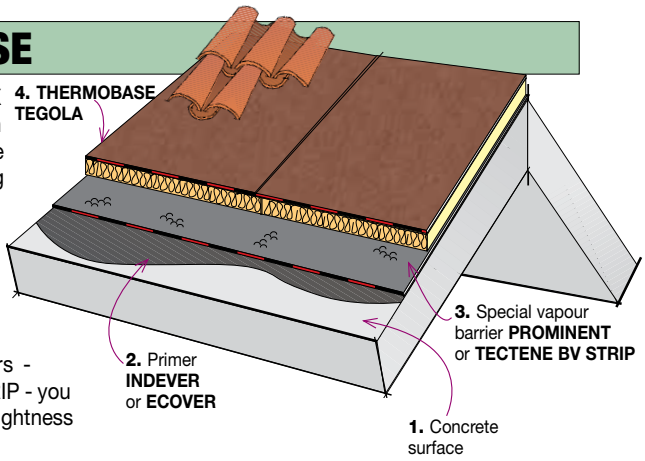
METHOD OF USE

In addition to the traditional bonding and mechanical securing systems used in the waterproofing sector, **THERMOBASE** can be flame secured on the following innovative INDEX membranes:

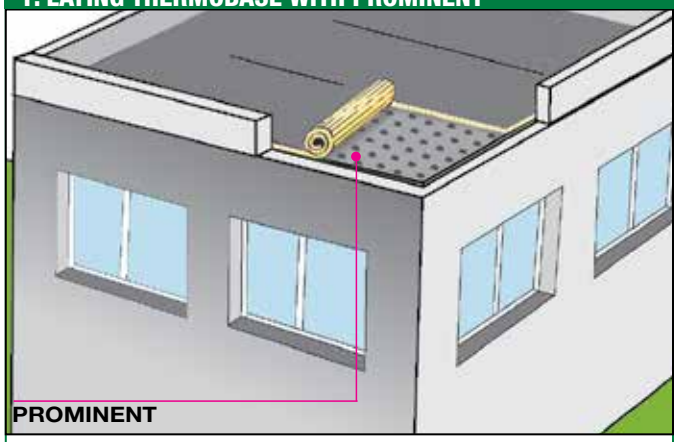
- PROMINENT
- TECTENE BV STRIP
- SELFTENE BV BIADESIVO (BIADHESIVE)

Use PROMINENT for laying heat resistant **THERMOBASE** such as **THERMOBASE PUR**, use TECTENE BV STRIP for **THERMOBASE PSE** and **THERMOBASE PSE/EX** . Flame-gluing on special INDEX membranes allows easy laying even on pitched roofs with considerable savings in transport costs and laying times.

You no longer have to wait for the bitumen to melt in the boiler and there's no need to transport either oxidised bitumen or the boiler. By using a roll of the special new multi-purpose vapour barriers - PROMINENT and TECTENE BV STRIP - you simultaneously obtain both vapour tightness and bonding of the heat insulation.

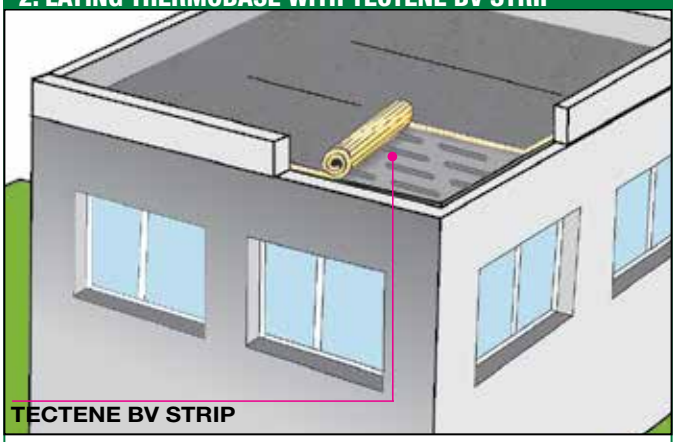


1. LAYING THERMOBASE WITH PROMINENT



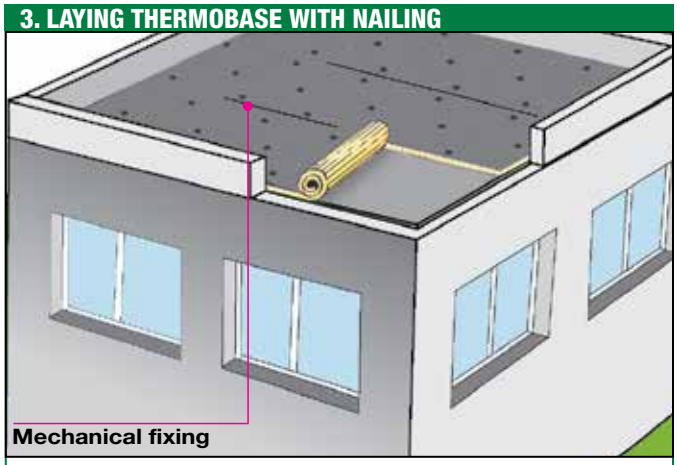
SYSTEM SUITABLE FOR THE FOLLOWING TYPES OF THERMOBASE
- THERMOBASE PUR and THERMOBASE TEGOLA PUR

2. LAYING THERMOBASE WITH TECTENE BV STRIP



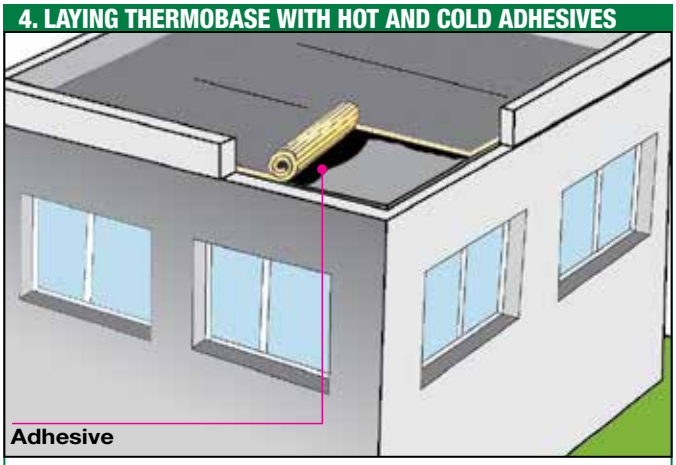
SYSTEM SUITABLE FOR THE FOLLOWING TYPES OF THERMOBASE
- THERMOBASE PSE and THERMOBASE TEGOLA PSE
- THERMOBASE PSE/EX and THERMOBASE TEGOLA PSE/EX on flat roofs

3. LAYING THERMOBASE WITH NAILING



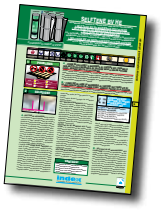
SYSTEM SUITABLE FOR THE FOLLOWING TYPES OF THERMOBASE
- THERMOBASE PSE and THERMOBASE TEGOLA PSE
- THERMOBASE PSE/EX and THERMOBASE TEGOLA PSE/EX
- THERMOBASE PUR and THERMOBASE TEGOLA PUR

4. LAYING THERMOBASE WITH HOT AND COLD ADHESIVES

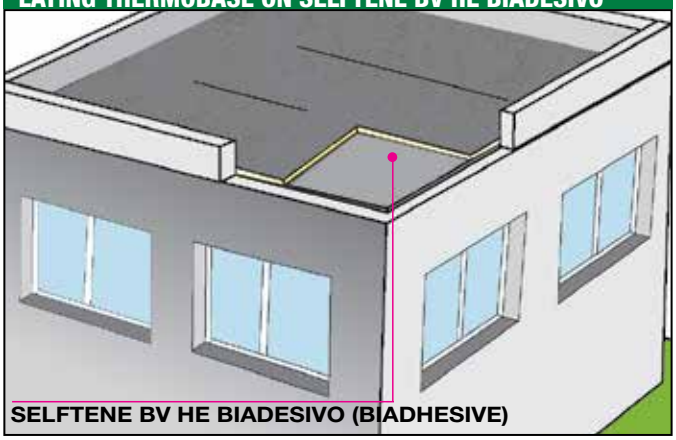


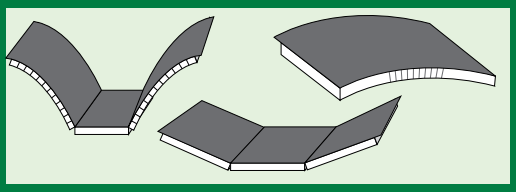
SYSTEM SUITABLE FOR THE FOLLOWING TYPES OF THERMOBASE
- THERMOBASE PUR and THERMOBASE TEGOLA PUR — **in hot-state with melted oxidised bitumen**
- THERMOBASE PUR and THERMOBASE TEGOLA PUR
- THERMOBASE PSE and THERMOBASE TEGOLA PSE
- THERMOBASE PSE/EX and THERMOBASE TEGOLA PSE/EX — **in cold-state on surface with MASTICOLL**

The use of SELFTENE BV BIADESIVO offers another possibility: the self-adhesive vapour barrier membrane on which the insulating panels can be glued by simple pressure without using other materials.
Hot bitumen, adhesives or flames are no longer used. Simply remove the silicone-coated film protecting the upper face of the membrane and press the insulating panel on it.
It is a suitable solution to fix all types of **THERMOBASE**.



LAYING THERMOBASE ON SELFTENE BV HE BIADESIVO





Marking

CE

Reference standard
EN13163

ISOPREF PSE

CHARACTERISTICS				ENVIRONRMENTAL							METHOD OF USE			
THERMAL INSULATION	ACOUSTIC INSULATION	WATERPROOF	REACTION TO FIRE	ECO GREEN	ASBESTOS FREE	TAR FREE	CHLORINE FREE	RECYCLABLE	NON DANGEROUS WASTE	EXHAUSTED OIL FREE	APPLY BY MECHANICAL FIXING	APPLY BY COLD ADHESIVE	LAYING WITH TECTENE BV STRIP	LAYING WITH SELFTENE BV HE

DESCRIPTION

In addition to THERMOBASE, we also produce prefabricated insulating elements in expanded polystyrene. They are pre-coupled to the membrane and can be used for made-to-measure covering of many different types of prefabricated roofs. **ISOPREF PSE**.
We produce prefabricated elements to order in different shapes, thicknesses and densities. These elements are the result of co-operation between the installer and/or the 'prefabricator'. We can provide you a feasibility study for every problem or situation. We are able to produce one or more elements with a lay-out of notches and cuts, enabling them to be bent in the most appropriate way to follow the shape that has to be covered. The elements are joined by allowing the panel's waterproof membrane to project on one or more sides.
The **ISOPREF PSE** elements cut down laying time and enable delivery of the building works to be industrially planned. This is because most of the insulation and waterproofing work can be carried out at the manufacturer's plant. This reduces on-site operations to the last stages of applying the waterproof layer.

Dimensions available

	Length		Width		Thickness	
	maximum	minimum	maximum	minimum	maximum	minimum
INSULATION PANEL						
• Single slab	2,560 mm	1,000 mm	1,050 mm	450 mm	100 mm	30 mm
• 2 symmetrical slabs	3,000 mm	1,000 mm	1,050 mm	450 mm	100 mm	30 mm
MEMBRANE			1.100 mm	600 mm	5 mm	2 mm
FRONT AND REAR OVERLAPPING STRIPS	200 mm	50 mm				
SIDE OVERLAPPING STRIPS			100 mm	0 mm		

TECHNICAL CHARACTERISTICS

	Regulation	ISOPREF PSE 80											ISOPREF PSE 120										
Intended use		- for all uses -											- for all uses -										
Designation code	**EN 13163**	EPS-EN 13163-T(2)-L(3)-W(3)-S(5)-P(30)-DS(N)5-BS125-CS(10)80											EPS-EN 13163-T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)5-BS170-CS(10)120										
Compression strength 10% compression	**EN 826**	≥80 KPa [CS(10)80]											≥120 KPa [CS(10)120]										
Dimensional stability 48 h at 23°C at 90% R.H.	**EN 1604**	±0.5% [DS(N)5]											±0.5% [DS(N)5]										
Bending strength	**EN 12089**	≥125 KPa [BS125]											≥170 KPa [BS170]										
Perpendicular tensile strength of faces		–											–										
Thermal conductivity λ	**EN 12667**	0.037 W/mK											0.035 W/mK										
Thickness **T(1)** (mm)		**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120**
Thermal resistance R_D(m^2K/W)		0.55	0.82	1.09	1.36	1.63	1.90	2.17	2.44	2.71	2.99	3.26	0.58	0.87	1.16	1.44	1.73	2.01	2.30	2.58	2.87	3.16	3.44
Thermal capacity (KJ/K·m^2)		0.43	0.65	0.86	1.09	1.30	1.51	1.73	1.94	2.16	2.38	2.59	0.53	0.79	1.06	1.32	1.58	1.85	2.11	2.38	2.64	2.90	3.17
Long term water absorption by immersion	**EN 12087**	<5%											<5%										
Water vapour transmission	**EN 12086**	μ = 30÷70											μ = 30÷70										
Reaction to fire	**EN 13501-1**	Euroclass E_{d2}											Euroclass E_{d2}										
Specific characteristics of the polymer-distilled bitumen membrane																							
Impermeability	**EN 1928-B**	60 kPa											60 kPa										
Permeability to vapour	**EN 1931**	μ = 20,000											μ = 20,000										
Thermal conductivity		0.2 W/mK											0.2 W/mK										
Type		**V2**	**V3**	**P3**	**P4**	**MIN P3.5**		**MIN P4.0**		**MIN P4.5**			**V2**	**V3**	**P3**	**P4**	**MIN P3.5**		**MIN P4.0**		**MIN P4.5**		
Thermal capacity (KJ/K·m^2)		2.60	3.90	3.90	5.20	4.20		4.80		5.40			2.60	3.90	3.90	5.20	4.20		4.80		5.40		

The following drawings provide an example of the possible solutions with ISOPREF PSE.
Please ask us for our made-to-measure solution to your problems, and we will be happy to submit our feasibility study.

ANIT associates

The data in this publication is the result of laboratory tests or observations on site and this does not guarantee the repeatability of the results in equivalent systems.

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