



DIFOBAR SINT 160 DIFOBAR SINT 150 DIFOBAR SINT 90

ULTRA-BREATHABLE SYNTHETIC WATERPROOFING UNDER-TILE SHEETS FOR VENTILATED AND NON-VENTILATED TIMBER-FRAMED ROOFS.

GRANTS *LEED* CREDITS

CATEGORY	CHARACTERISTICS		ENVIRONMENTAL IMPACT						PROCEDURE FOR USE	
SYNTHETIC	IMPERMEABLE AND BREATHABLE	REACTION TO FIRE	ECO GREEN	DOES NOT CONTAIN ASBESTOS	DOES NOT CONTAIN TAR	DOES NOT CONTAIN CHLORINE COMPOUNDS	RECYCLABLE	NON HAZARDOUS WASTE	DOES NOT CONTAIN USED OILS	APPLICATION WITH NAILS

1 PROBLEM

Flat Sloping
 Concrete Timber

HOW TO CREATE UNDER-TILE PROTECTION OF A ROOF WITHOUT VENTILATION TO PREVENT CONDENSATION OF WATER VAPOUR

Using ultra-breathable DIFOBAR SINT synthetic under-tile sheets, which allow vapour but not water to pass, under-tile protection can be achieved even in roofs without ventilation, avoiding condensation. The sheets can also be laid directly over the thermal insulation.

2 SOLUTION

The exceptional transpirability of **DIFOBAR SINT 90** and **DIFOBAR SINT 150** "ultra-transpiring" synthetic breather membranes is able to dispose of large quantities of vapour per day. This property is due to the special microporous structure of the polymer layer that constitutes its core, and which is protected on both sides with polypropylene non-woven fabric.

DIFOBAR SINT 90 and **DIFOBAR SINT 150** are composed of a microporous polymer layer sandwiched between two sheets of polypropylene non-woven fabric, and are intended only for use on wooden roofs.

DIFOBAR SINT 160, with its high mechanical strength, is composed of a microporous polymer layer sandwiched between two sheets of heavier-weight polypropylene non-woven fabric, and is suitable for both wooden and concrete roofs.

APPLICATION FIELDS

The very high breathability of synthetic under-tile sheets makes them ideal for installation even in conditions without primary ventilation and directly over the thermal insulation layer or on prefabricated insulating sandwich panels. They can also be used on ventilated wooden roofs, both over wooden boards or suspended between the framing without supporting boards; for **DIFOBAR SINT 160** and **DIFOBAR SINT 150** the gap between framing members can be as much as 90 cm. The gap between framing members must not exceed 60 cm when using **DIFOBAR SINT 90**.

DIFOBAR SINT FORTE is suitable not only for wooden roofs but also cast concrete or hollow-core concrete roofs, even if the concrete has not completely cured, since the exceptional breathability of the sheets ensures that the concrete will dry completely.

METHOD OF USE

The under-tile membrane should be laid dry on the surface of the boarding with the sheets arranged "tile fashion" parallel to the eaves line,

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

EN 13859-1 - UNDERLAY FOR DISCONTINUOUS ROOFING

- Under-tile breathable
 - DIFOBAR SINT 160
 - DIFOBAR SINT 150
 - DIFOBAR SINT 90

maintaining continuity and taking care to overlap the individual sheets by 10 cm longitudinally and end-to-end. The sheets must be fixed with nails or staples under the lateral and end overlaps to avoid the possibility of slippage during the work on the roof covering. It is important to seal each lateral and end overlap with SIGILTAPE tape in order to ensure a perfect air seal. Any perforations due to elements passing through the sheet must be adequately sealed with SIGILTAPE tape or suitable gaskets.

TECHNICAL SPECIFICATIONS

	Regulations	T	DIFOBAR SINT 160	DIFOBAR SINT 150	DIFOBAR SINT 90
Reinforcement			-	-	-
Mass per unit area	EN 1849-1	±10%	180 g/m ²	150 g/m ²	95 g/m ²
Roll dimensions	EN 1848-1	≥	1.5x50 m	1.5x50 m	1.5x50 m
Maximum lateral/end tensile force	EN 12311-1	-20%	335/300 N/50 mm	300/230 N/50 mm	200/160 N/50 mm
Lateral/end tensile elongation	EN 12311-1	±10%	85/80%	85/75%	65/65%
Lateral/end nail tear strength	EN 12310-1	±15%	190/200 N	165/180 N	100/100 N
Cold flexibility	EN 1109	≤	-	-	-
Permeability to water vapour • after ageing	EN 1931 EN 1296-1931	-20% -20%	μ = 30 NPD	μ = 30 NPD	μ = 75 NPD
Water penetration • after ageing	EN 1928 EN 1296-1928		W1 W1	W1 W1	W1 W1
Reaction-to-fire Euroclass	EN 13501-1		E (*)	E (*)	E
Water vapour diffusion equivalent air layer thickness	EN 1931		Sd = 0.02 m	Sd = 0.02 m	Sd = 0.03 m
Density of water vapour flow	EN 1931		1.60·10 ⁻⁵ kg/m ² sec	1.60·10 ⁻⁵ kg/m ² sec	3.67·10 ⁻⁵ kg/m ² sec
Thermal characteristics					
Thermal conductivity			0,050 W/mK	0,050 W/mK	0,050 W/mK
Thermal capacity			0.21 KJ/K	0.21 KJ/K	0.21 KJ/K

(*) Product supported by boards.

product in use. Considering the many possible uses and the possible interference of elements not under our control, we take no responsibility for the results. The Purchaser is responsible for establishing the suitability of the product for the use envisaged.

COMPOSITION OF THE MEMBRANE

DIFOBAR SINT 160	DIFOBAR SINT 150	DIFOBAR SINT 90
<p>Reinforced polymer sheet</p> <p>Non-woven fabric</p>	<p>Polymer sheet</p> <p>Non-woven fabric</p>	<p>Polymer sheet</p> <p>Non-woven fabric</p>

PRODUCT FINISHING



POLYPROPYLENE NWF.

• FOR THE CORRECT USE OF OUR PRODUCTS, CONSULT INDEX TECHNICAL SPECIFICATIONS • FOR FURTHER INFORMATION OR SPECIAL USES, CONSULT OUR TECHNICAL OFFICE •

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The data provided are indicative average data for current production and may be changed and updated by INDEX S.p.A. at any time, without prior notice. The technical information and suggestions provided represent our best knowledge of the properties of the