

SUN'X[®]

Flexible radiant barrier and roofing under layer

DEFINITION & USES

The flexible radiant underroof barrier and roofing underlayer **Sun'X[®]** contribute to:

- **Hot conditions (summer season):** reduce of the thermal transfers from roof coverings to towards the subjacent areas by reduction of the roof **solar factor** related to the high reflectivity of his external facing and the improvement of the natural convection in the under tiles air layer ("chimney effect " optimized),



It also supply the functions of a **roofing under layer** for:

- the protection of the roofs covered with small discontinuous elements (tiles, slates...) against the risks of penetration of snow, soot and dust, wet salted sea wind,
- allows infiltrated water going back to the gutter,
- the reduction of the roof air permeability.

Specifics installation rules are to be provided for optimizing the solar protection performances particularly by increasing the ventilation under the coverings.

Sun'X[®] can be applied tended onto rafters or fully supported on continuous decking (timber boarding, plywood, wooden panels with under-face ventilated).

The use of **Sun'X[®]** is limited to the buildings with a low or medium hygrometry

COMPOSITION

Sun'X[®] comprises a polyester reinforcement with only one face coated with a SBS bitumen protected by a composite polyethylene / aluminium foil, the fibrous under face allows an easy application on timber boarding.

OPTICAL PROPERTIES

- emissivity :

hemispheric average emissivity ϵ^* in spectral wave length 5 μ m up to 23 μ m		
	emissivity ϵ : (%)	Reflectivity : (%)
External facing	0,014	98,6%

L.N.E testing lab.

REACTION TO FIRE

Sun'X® is classified euroclass **E** according to EN 13501-1 (test report n° G040790 – CEMATE/3 from L.N.E Notify Body 0071)

PACKAGING

Sun'x®	Width (m)	Length (m)	Surface / roll m ²	Weight /roll kg	Rolls / pallet	Weight /pallet kg
	1,25	40	50	20	36	≈ 750

PHYSICAL AND MECHANICAL CHARACTERISTICS

Characteristics	Test method	U	Value	Tolerance		
length	NF EN 1848-1	M	40	- 0 ; + 1,5%		
width	NF EN 1848-1	M	1,25	-0,5% +0,5%		
straightness	NF EN 1848-1	–	Pass	-		
mass	NF EN 1849-1	g/m ²	375	± 10 %		
Résistance to water penetration						
- new product	EN 1928	–	W1			
- after ageing			W1			
Water vapor transmission properties	EN ISO 12572 / Climate C	W : Kg/m ² .s.Pa Sd : m	2.1 10 ⁻¹³ 1200	± 0,1 10 ⁻¹³		
Tensile properties						
maximum force	EN 12311-1 Modified by EN 13 859-1	N/50 mm	L	T	L	T
New product			245	225	σ = 10	σ = 18
After ageing			270	235	σ = 9	σ = 7
Elongation at break						
New product	EN 12311-1 Modified by EN 13 859-1	%	17	27	σ = 2	σ = 15
After ageing			15	14	σ = 3	σ = 1
Resistance to tearing (nail tear)	EN 12310-1	N (MD x CD)	295	325	σ =20	σ =40
Dimensional stability	EN 1107-1	% (MD x CD)	- 0, 7			
Flexibility at low temperature	EN 1109	°C	- 25			

INSTALLATION

The flexible radiant barrier **Sun'X**[®] is installed tightened onto supports :

- minimum longitudinal overlap: **20 cm** (for slope up to 15°) or **10 cm** (for slope above 15°)
- ventilation of the under-face required,
- overlap joints could be closed with **Therm'X**[®] adhesive tape (aluminium) 75 mm x 50 m
- counter-battens shall have a 38 mm recommended thickness for a better thermal efficiency during the hot conditions (summer season)
- when **Sun'X**[®] is installed over a new or an existing thermal insulation it is recommended to have a minimum of 20 mm ventilated air gap .

WAREHOUSING & STORAGE

Rolls are stored vertically in warehouse or must be protected from sun and humidity, superposition of pallet is not allowed.

SECURITY

Product is classified as a non dangerous product and does not contain any dangerous substances

CE MARKING

Sun'X[®] is marked CE according EN 13859-1 Attestation of conformity is available on the Siplast web site

<http://www.siplast.fr/>