

Technical Commercial Data Sheet

Megaver California



Membrane with high solar reflectance index (SRI) for energy saving and against Heat Island effect.

SAVE MONEY

- Reduction in the surface temperature of the roof
- Reduction in summer air conditioning costs of up to 30%
- Better living comfort, particularly for the top floor
- Protection of frames from day-night and seasonal temperature variations
- Increase in the yield of the photovoltaic modules placed on the roof
- Very high durability compared to other reflecting surfaces*
- Appreciable aesthetic solution, highly improving compared to finishes with traditional membranes
- Protection from UV rays and considerable lengthening of life of waterproofing

SAVE THE PLANET

- Reduction of the heat island effect and, consequently the temperature of the surrounding area
- Reduction in electricity consumption for air conditioning
- Pleasant visual impact

SAVE MONEY. SAVE THE PLANET

CALIFORNIA

Fire resistance:
Broof (t2) according to EN 13501-5, on any kind of substrate and slope.

LEED certification:
Contributes to satisfy Credit SS 7.2 "Heat Island Effect: roofs" (according to the LEED NC 2009 Italia protocol).

Photovoltaic modules:
A temperature increase of the cells over the standard conditions, corresponds to a decrease of efficiency in electrical energy production. That means a - 0.5% less production at an increase of 1 ° C of the cell temperature over the 25 ° C standard (SG Solar Powermax technical data sheet).

Description

The MEGEVER METAL membranes are realized with a special compound based on bitumen modified with new generation elastomeric polymers (BPE), with -25°C cold flexibility. The reinforcement is double and consists in glass tissue and glass cloth. The membrane is faced with a goffered aluminum foil pre-painted with white reflecting paint, after being treated with a high technology process in order to have better adhesion and durability.

MEGEVER CALIFORNIA guarantees a high reduction of the temperature on the roof (up to 40 °C) thanks to very high emissivity and reflectance values that last during years. This feature brings key advantages both for residents of the building and for the environment.

MEGEVER CALIFORNIA not suffer from the problems that affect slated reflective membranes related to yellowing due to exudation and the discontinuity of color due to loss of slate.

Energy Saving:

In California and in other USA States, "cool roofs" are a subject of studies from long time. An energy consumption monitoring executed in different areas of United States has shown significant energy savings thanks to less demand on air conditioning both in insulated and not insulated buildings. The energy saving reaches up to 70% of air conditioning costs ascribable to a waterproof flat roof.

Certainly, total saving is linked to the weight of the surface of roof on the total surface of the building and, more precisely, linked to the incidence of consumption ascribable to the roof on the total energy consumption of the building. In a building where the roof weights approx. 40%, the energy saving is estimated to be about 30%.

Storage

It is advisable to keep the rolls in warehouse, not exposed to the sun rays and at a higher temperature than +5°C. Keep the rolls in the upright position. Avoid stacking pallets. It is advisable to use the product within 2/3 months from delivery.

Application

- Use Personal Protective Equipment as requested by law;
- Clean properly the surface on which membranes has to be applied;
- The treatment of the application surface with Bituver ECOPRIVER water based bituminous primer is suggested;
- MEGEVER CALIFORNIA is meant to be applied by flame with a gas propane blow torch by heating the lower face, covered with a special termofusibile film;
- Apply between +5° C and + 35° C;
- Use maximum 5 m long rolls;
- The metal foil works as vapour barrier, consequently, the base on which this membrane has to be applied must be perfectly dry;
- As base layer is suggested to use composite polyester reinforced membranes;
- Pay attention to avoid direct contact of the metal foil with the flame in order to avoid damages or delamination of the foil;
- Heat primarily rolls of the base layer, the direction of the flame has to be on the reverse side of the previous layer of metal faced membrane that is already placed;
- Proceed pulling membrane and walking before the applied membrane;
- Avoid to move heavy items on the product during construction site;
- Wear shoes with large sole and without heels;
- On slopes above 20% make a mechanical fixing every 20 cm;
- Read the warnings in the product documentation carefully. For further clarification and information contact the ISOVER SAINT GOBAIN ITALY Technical Service.

Recommended Use

MEGEVER CALIFORNIA membranes are particularly indicated as top layers in high aesthetic value roofs where the maintenance has to be kept at the minimum level.



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www.bituver.it/en



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Features	Test method/classification	MEGAVER CALIFORINA	TOLERANCE
Reinforcing	-	Glass tissue and glass cloth	-
Finishing	-	Pre-painted reflecting aluminum with high SRI	-
Resistance to corrosion on surface	ASTM B117	Index 2 according EN 1396: corrosion infiltration <3mm Face blistering B2(S2).	-
UV resistance on surface	1500 h at QUVA, UVA340 0,89 W/m ² ; cycle: 4 h light at 60°+ 4 h condensation at 50°C	RG < 50% - Δ E<3	-
Length	UNI EN 1848-1	10 m - 1%	≥
Width	UNI EN 1848-1	1 m - 1%	≥
Weight	UNI EN 1849-1	4.5 kg/m ²	10%
m² per pallet	-	230	-
Visible faults	UNI EN 1850-1	absent	-
Straightness	UNI EN 1848-1	10 mm	≤
Water tightness	UNI EN 1928	60 kPa	≥
Cold flexibility	UNI EN 1109	- 25 °C	≤
Cold flexibility after ageing	UNI EN 1296 - UNI EN 1109	- 20 °C	+ 15 °C
Dimensional stability L	UNI EN 1107-1	NPD	≥
Form stability at high temperature	EN 1110	100 °C	≥
Tensile strength at breaking L/T	UNI EN 12311-1	1100/950 N/50 mm	- 20 %
Elongation L/T	UNI EN 12311-1	5/5 %	- 15 v.a.
Resistance to tearing (method B) L/T	UNI EN 12310-1	200/200 N	- 30 %
Resistance to static loading	UNI EN 12730	NPD	-
Resistance to impact	UNI EN 12691	NPD	-
Vapour permeability	UNI EN 1931	μ 670 000	-
Fire reaction	EN 13501-1	NPD	-
External fire resistance	EN 13501-5	B roof (t2)	-
Uses	EN 13707	Top layer	-
Solar reflectance (R) ¹	ASTM E903	77 %	-
Thermal emissivity (E) ¹	ASTM C1371	90 %	-
Solar Reflectance Index (SRI) ¹	ASTM E1980	h _c = 5 W/(m ² K) = 95%	-
		h _c =12 W/(m ² K) = 96%	-
		h _c =30 W/(m ² K) = 96%	-
		Uses	EN 13707 System 2+

¹ Test report of Mechanical and Civil Engineering Dep. / EELab – Univ. of Modena and Reggio Emilia - Italy

The Saint-Gobain PPC Italia S.p.A. quality system is certified according to EN ISO 9001

Follow proper application and storage modalities.

The CE marking of this bituminous membrane is in accordance with the European Construction Products Regulation 305/2011, is in agreement to the reference technical standards and is supported by certification no. 1370-CPR-0050.

Saint Gobain PPC Italia has the right to change the technical data of this data sheet any time with no need of notice.



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