Technical Commercial Data Sheet

BITUVER MEGAVER CALIFORNIA

B_{ROOF} (t_2)

SRI 96%

The waterproofing membranes in the MEGAVER CALIFORNIA family are made with a **special bituminous-based compound modified with new generation elastomeric polymers (BPE)** with cold flexibility of -25°C. The reinforcement is made up of fibreglass and glass tissue.

The membrane is covered with an embossed aluminium foil pre-painted with reflective white after extremely high technology treatment aimed at improving adhesion and duration.

MEGAVER CALIFORNIA ensures a significant decrease in the temperature and diffused light of the covering thanks to an extremely high reflectance and high emission, long lasting over time. These characteristics ensure **high SRI values**, with significant advantages both for those who dwell in the structure itself and for the surrounding environment.
Compared to the slated reflective membranes, MEGAVER CALIFORNIA is not subject to yellowing due to exudation and discontinuity of colour due to loss of slate.

Regulation and LEED Certification

Full compliance with the prevailing regulation (CAM and DM 26/06/2015).
Contributes to satisfying the SS Credit "Heat island effect: roofs" (in accordance with LEED v4 Protocol).
See details on page 2.

Fire performance classification

BROOF (t2) fire performance classification on any type of substrate, even combustible, with volume mass no lower than 15 kg/m^3, in accordance with standard UNI EN 13501-5, valid for risk assessment in accordance with the guide for installation of VV.F photovoltaic systems.

Other characteristics

- Reduction of the roof surface temperature
- Reduction of summer cooling costs by up to 30%
- Better dwelling comfort
- Protection of the bearing structures from day/night temperature oscillations
- Increased performance of the photovoltaic modules placed on the roof
- Extremely high durability compared to other reflecting solutions
- Elegant aesthetic solution, great improvement over finishing with traditional membranes
- Protection from U.V. rays and significant extension of the waterproofing life
- Reduction of the heat island effect and, consequently, of the surrounding environment temperature
- Reduction of electrical energy consumption for cooling
- Elegant aesthetic solution

Saint-Gobain PPC Italia S.p.A.
Via E. Romagnoli, 6 • 20146 Milan • Italy • Tel. +39 02 61115.1
info.it.isover@saint-gobain.com | www.isover.it

CODE: STCB 111
REVISION: 09
DATE: April 2019

isover SAINT-GOBAIN

SRI | Solar Reflectance Index

	VALUE	VALUE *(test with membrane subjected to ageing)*
Solar Reflectance Index (SRI)	Low windiness **95%**	Low windiness **75.8%**
Test Method ASTM E1980	Medium windiness **96%**	Medium windiness **78.8%**
EELab Dept. of Mechanical and Civil Engineering test report – University of Modena and Reggio Emilia	High windiness **96%**	High windiness **80.7%**

COOL ROOF - Regulatory requirements and voluntary certifications

Limitations foreseen by LEED v4 Protocol

Type of roof	Slope	SRI	SRI at three years
With low slope	≤ 15%	82	64
With high slope	> 15%	39	32

Limitations foreseen by CAM – Criteri Ambientali Minimi (*Minimum Environmental Criteria*)

Type of roof	Slope	SRI
With low slope	≤ 15%	76
With high slope	> 15%	29

Limitations foreseen by Ministerial Decree 26/06/2015

Type of roof	Reflectance
Flat roofs	0.65
With high slope	0.30

Saint-Gobain PPC Italia S.p.A.
Via E. Romagnoli, 6 • 20146 Milan • Italy • Tel. +39 02 61115.1
info.it.isover@saint-gobain.com | www.isover.it

CODE: STCB 111
REVISION: 09
DATE: April 2019

Recommended uses
The MEGAVER CALIFORNIA membranes are particularly ideal as a finishing layer, in coverings with significant aesthetic value and where maintenance operations must be reduced to a minimum.

Storage
Store the rolls indoors, protected from sunlight and at a temperature no lower than +5°C. Keep the rolls in a vertical position. If possible, avoid stacking the pallets. We recommend using the product within 2-3 months from delivery.

Application
- Use the PPE required by the law
- Adequately clean the support and ensure that it is perfectly dry
- We always recommend preparing the support with bituminous primer Bituver ECOPRIVER
- MEGAVER CALIFORNIA is suitable for torch application by heating the lower coated surface of a special heat melt film with a propane gas torch.
- Always apply between +5°C and + 35°C
- Use cloths that are a maximum of 5 m long;
- Avoid direct contact of the metal with the torch flame in order to prevent causing damage to or detachment of the sheet;
- Weld the cloths heating primarily the underlying membrane;
- As a first sealing layer, using reinforced composite polyester membrane is preferable;
- Avoid job site handling on the product, especially after torching;
- Footwear must be kept clean during installation. It may be helpful to protect the membrane surface during laying;
- It is good standard practice to wear suitable, wide-sole footwear without heels in order not prevent damaging the metallic sheet;
- For slopes greater than 20%, carry out a mechanical fastening every 20 cm;
- In the event of use on insulation, prepare a vapour barrier under the insulating material and an adequate number of aerators.

Energy savings
Monitoring of energy consumption in various areas of the United States has highlighted significant energy savings for cooling buildings in the summer, in the case of both insulated and non-insulated roofs. Energy savings reaches as high as 70% of the summer cooling consumption attributable to a flat waterproofed roof. The total savings also depends on the impact of the roof surface on the total of the shell of the building in question and, more specifically, on the influence of consumption attributable to the roof on the total consumption associated with the shell. This translates into a savings calculated up to 30% in an average building where the roof has an impact of about 40%

Saint-Gobain PPC Italia S.p.A.
Via E. Romagnoli, 6 • 20146 Milan • Italy • Tel. +39 02 61115.1
info.it.isover@saint-gobain.com | www.isover.it

CODE: STCB 111
REVISION: 09
DATE: April 2019

Type	Reinforcement	Surface finish:	Thickness.-weight/m²	m²/Pallet
MEGAVER CALIFORNIA	Glass tissue and fibreglass	Pre-painted reflecting aluminium foil with high SRI	4.5 kg	230

Dimensional Specifications

Length	10 m – 1%, (UNI EN 1848-1)	Tol. ≥
Width	1 m – 1% (UNI EN 1848-1)	Tol. ≥
Weight per m²	UNI EN 1849-1	Tol. 10%

Technical data

Characteristic	Regulation	Megaver California	Tolerances
Visible defects	UNI EN 1850-1	absent	-
Straightness	UNI EN 1848-1	10 mm	≤
Surface corrosion resistance	ASTM G85 (pH=3.1-3.3, NaCl 5%,35°C-1000h)	Index 2 in accordance with UNI 1396: Corrosion infiltration<3mm Face blistering B2(S2)	-
Resistance to surface Ultraviolet rays	ASTM G154 (UV-313 4 h 60ºC/condensation, 4 h 40ºC)	1000 h	ΔE < 3 RG > 50%
Waterproof rating	UNI EN 1928	60 kPa	≥
Flex. when cold	UNI EN 1109	- 25 °C	≤
Flex. when cold after ageing	UNI EN 1296 UNI EN 1109	- 20°C	+ 15°C
Dimensional stability L	UNI EN 1107-1	NPD	≥
Stability of shape when hot	EN 1110	100°C	≥
Tensile breaking strength L/T	UNI EN 12311-1	1100/950 N/50 mm	- 20 %
Elongation at break L/T	UNI EN 12311-1	5/5 %	- 15 v.a.
Tear strength (method B) L/T	UNI EN 12310-1	200/200 N	- 30 %
Static load strength	UNI EN 12730	NPD	≥
Dynamic impact strength	UNI EN 12691	NPD	≥
Vapour permeability	UNI EN 1931	μ 670,000	-
Reaction to fire	EN 13501-1	E	-
External fire resistance	EN 13501-5	B roof (t2)	-
Intended use	EN 13707 System 2+	Finishing layer	-
Solar reflectance (R)[1]	ASTM E903	77%	-
Thermal emission (E)[1]	ASTM C1371	90%	-

The Saint-Gobain PPC Italia S.p.A. quality system is EN ISO 9001 certified.
The products presume suitable application and storage methods.

Saint-Gobain PPC Italia S.p.A.
Via E. Romagnoli, 6 • 20146 Milan • Italy • Tel. +39 02 61115.1
info.it.isover@saint-gobain.com | www.isover.it

CODE: STCB 111
REVISION: 09
DATE: April 2019

The CE Marking of this bituminous membrane complies with European regulation 305/2011, complies with the reference technical regulations and is supported by certificate No. 1370-CPR-0050 and by test report No. 51-07-0049\004 issued on 16 May 2007 by TUM Centre For Building Materials Baumbachstraβe, Notified Testing Laboratory No. 1211
Saint-Gobain PPC Italia reserves the right to modify the technical data on this data sheet at any time without any advance notice.

CE

Saint-Gobain PPC Italia S.p.A.
Via E. Romagnoli, 6 • 20146 Milan • Italy • Tel. +39 02 61115.1
info.it.isover@saint-gobain.com | www.isover.it

CODE: STCB 111
REVISION: 09
DATE: April 2019

ISOVER SAINT-GOBAIN