COOL ROOF SOLUTIONS

HIGHLY REFLECTIVE
AND FIRE-RESISTANT
LIQUID WATERPROOFING SYSTEMS

SOLAR REFLECTANCE

FIRE PROTECTION

PHOTOVOLTAIC SYSTEM

IMPROVED THERMAL EFFICIENCY

COOLING COST REDUCTION

POLYGLASS® MAPEI® GROUP

Cool roof systems
and energy efficiency

Cool roof systems play a crucial role in enhancing the energy efficiency of buildings. These surfaces are specifically designed to reflect solar radiation and reduce indoor heat gain, improving occupant comfort while lowering overall energy consumption.
By integrating cool roof technologies with solar panel systems, it is possible to significantly increase photovoltaic efficiency, as lower operating temperatures lead to improved energy output from the modules.
This synergy not only boosts the energy performance of buildings but also contributes to a meaningful reduction in greenhouse gas emissions, supporting a more sustainable and resilient built environment.

Fire performance
of waterproofing systems

The roofs of buildings have become increasingly central in the transition to a sustainable energy system. Roofing systems are continuously evolving in response to the technical needs of buildings, alongside new energy management systems and new envelope designs.
Several installation guides for photovoltaic systems provides essential recommendations for the installation and integration of these systems. These guidelines emphasize the importance of ensuring energy efficiency while maintaining building safety. The fire performance classification of roofs with photovoltaic systems is a key consideration in the installation process, with international standards promoting the use of materials and systems that enhance both energy performance and structural safety.

Polysint C B_{ROOF}

PHOTOVOLTAIC SYSTEM

B_{ROOF}(t2)

Polysint C B_{ROOF} is a liquid waterproofing membrane with fibers in a white aqueous emulsion with a high solar reflectance index (SRI) of 98.
It is classified as B_{ROOF}(t2) according to international standards regarding resistance to external fire.

Features

- B_{ROOF}(t2) classified
- Water-based
- Single-component
- Reinforceable with 70 RV Polyester
- Contributes to earning LEED credits
- Ready to use

Fields of application

Polysint C B_{ROOF} is suitable for creating cool roof coverings while also being fire-resistant with a B_{ROOF}(t2) classification.

It enhances the performance of photovoltaic systems by reducing the surface temperature by up to 50%.*

It lowers the operational temperature of the roof, contributing to improved performance and durability.

It can be applied on old polymer bitumen membranes, concrete, wood, metal surfaces, and paved surfaces.

** Compared to dark-colored surfaces*

High solar-reflectivity **liquid products**.

POLYLASTIC WHITE REFLECT

- SRI 98
- One-component elastomeric bituminous membrane in aqueous emulsion
- Suitable for various substrates
- Adheres on damp surfaces
- Can be tiled on with C2TES 1 or C2TES 2 adhesives
- Can be reinforced with POLIESTERE 60
- Ready to use

POLYSINT SUN REFLECT

- SRI 105
- Fiber-reinforced liquid waterproofing membrane in aqueous emulsion
- Classified $B_{ROOF}(t2)$ with the following membranes:
  - Futura X FIRE P
  - Polyflex X FIRE P
  - Futura RS4 AF P
- Ready to use

POLYVER SUPER WHITE

- SRI 106
- White coating for the protection of bitumen-polymer membranes
- High reflectance solvent-based solution
- Ready to use

Polyglass **high reflectance** and **fire-resistant** liquid solutions range

	Polysint C B_{ROOF}	Polylastic White Reflect	Polysint Sun Reflect	Polyver Super White
Water based	•	•	•	
Solvent based				•
Density [kg/l]	1,4	1,3	1,35	1,35
Consumption [kg/mq]*	1,6- 2,4	1,5-2,5	2,0-2,5	0,4-0,6
Consumption as a protective coat on bituminous membranes [kg/mq]*			0,7 - 1,0	
Classification	$B_{ROOF}(t2)$		$B_{ROOF}(t2)$**	
SRI	98	98	105	106
Range of colours		•		
Contributes to earning LEED credits	•	•	•	•
Application by brush	•	•	•	•
Airless application	•	•	•	•
Application by trowel		•		
CE marking according EN 1504 ***	•	•	•	•
CE marking according EN 14891 ****		•		

** The average consumption varies depending on the substrate, thickness, and the presence of reinforcement.*

*** With Futura XFIRE P, Polyflex XFIRE P, Futura RS4 AF P.*

**** Products and systems for the protection and repair of concrete structures.*

***** Liquid applied water impermeable products for use beneath ceramic tiling bonded with adhesives.*

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