SMART SYSTEM

What do you gain with **SMART SYSTEM**?

- Reduction of indoor temperatures by up 10°C
- Significant reduction in energy consumption for air conditioning during summer, by at least 25%
- Improved ventilation efficiency by lowering the temperature of the air intake from above the roof.
- Increased photovoltaic panel efficiency by up to 60%.
- Protection against overheating of photovoltaic panels.
- Fire spread resistance certified as BRoof t1.
- Substantial extension of the lifespan of roofing materials.
- High water resistance (250 kPa).

waterproofing | cooling | high reflecivity | fireproofing | durability | energy savings

SMART | THERMOREFLECTIVE PROTECTION SYSTEM

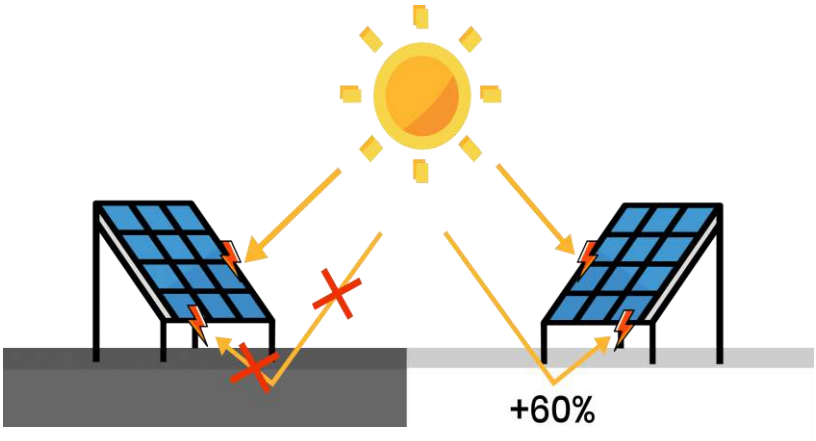
ZASTOSOWANIE

- For creating reflective protective and waterproof coatings on bituminous, metal, concrete, EPDM, and PVC surfaces.
- Suitable for application on both flat and sloped roofs, including new and renovated ones.
- For producing reflective coatings that enhance the efficiency of PV panels and prevent overheating.
- For creating coatings that improve the building's thermal comfort and contribute to energy savings.

EXCELLENT SOLUTION FOR:

- Supermarkets and food storage warehouses
- Residential buildings
- Manufacturing facilities
- Surfaces for photovoltaic panels
- Pharmaceutical warehouses
- Shopping centers

PERFECT SOLUTION FOR PHOTOVOLTAICS



PAPA **SMART**

When applied to surfaces for bifacial photovoltaic panels, the SMART system has demonstrated up to a 60% increase in efficiency compared to monofacial panels.

SMART | THERMOREFLECTIVE PROTECTION SYSTEM

The SMART system consists of several layers:

SMART reflex
TOP LAYER
THERMOREFLECTIVE
PROTECTION COATING

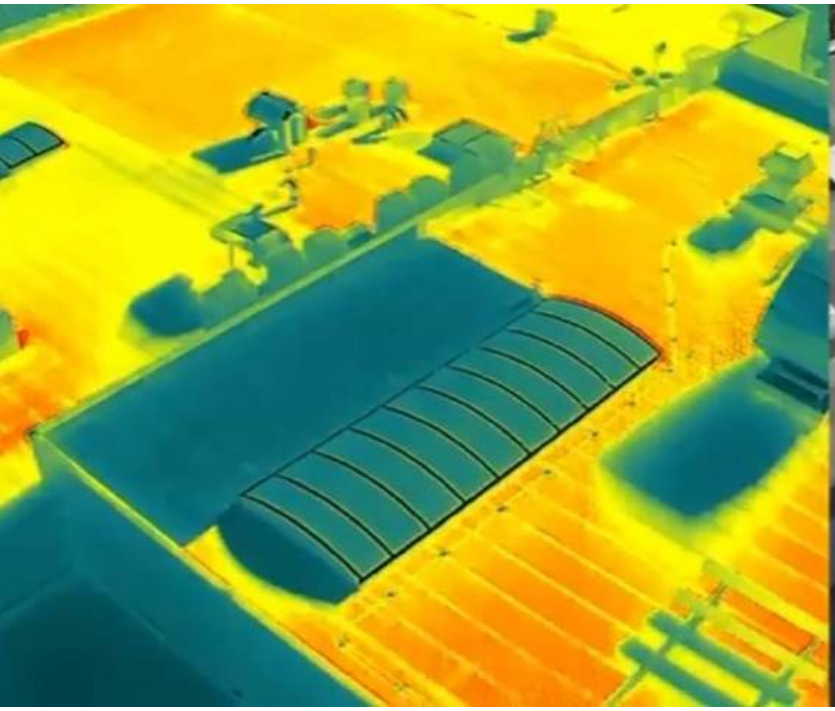
SMART repair
BASE LAYER*
ELASTOMERIC WATERPROOFING MEMBRANE

* *Depending on the substrate. For metal and PVC surfaces, the use of the SMART pnt primer is recommended, while for bitumen and concrete surfaces, SMART repair is recommended.

SRI 107

SOLAR REFLECTANCE INDEX

The SMART system effectively reduces the temperature inside buildings, which leads to lower air conditioning costs.



TECHNICAL DATA

PARAMETR	NORM	SMART
Final colour	-	White RAL 9003
SRI (solar reflectance index)	ASTM E1980-11	107
Reflectivity	ASTM E903-12	88%
External fire resistance	EN 13501-5+A1:2010	BRoof (T1)
Waterproofing [Kpa]	EN-PN 1928:2002	250
Product lifespan	ETAG 005	W3
Low-Temperature Flexibility[˚C]	PN-EN 1109:2013 -07	-35
Temperature Resistance[˚C]		-35, +85
Application temperature		+5˚C to +40˚C

The SMART system lowers the roof temperature by up to 70%, making it up to 10°C cooler under the roof on hot days.

SMART | THERMOREFLECTIVE PROTECTION SYSTEM

Application method

STEP 1SURFACE PREPARATION

The surface must be dry, clean, free from dust, grease stains, and old paint coatings. If there are cracks and holes on the roof surface, they should be repaired beforehand. For highly cracked bitumen surfaces, a reinforcing insert made of mesh or polyester nonwoven fabric should be applied.

STEP 2APPLYING THE BASE LAYER

Metal or PVC Surface

For metal or PVC surfaces, it is recommended to use the SMART pnt primer. The product is applied using a roller, brush, or spray method after mixing. The application of the next layer should begin once the primed surface has dried. The coating should be protected from rain and frost until dry. The work should be carried out at temperatures between +5°C and +40°C.


SMART pnt

Bituminous or Concrete Surface

For bituminous or concrete surfaces, apply the SMART repair elastic sealing compound, which is available in two-component kits: a liquid component (A) and a powder component (B). Component A should be poured into a suitably sized container, and then gradually add component B while mixing the entire mixture until a uniform consistency and color are achieved. It is recommended to use a paint or resin mixer for this.


SMART repair

It can be applied with a brush, roller, trowel, or spatula. Use within 60 minutes of mixing the components.

STEP 3 APPLYING SMART reflex

Apply to the surface using a brush, roller, or spray. Apply at temperatures between +5°C and +40°C during dry weather.

Before starting the work, make sure to read the technical data sheet or the information provided on the product label.


SMART reflex