INSULATION

CL-50 Reflex out
Technical data sheet

Reflex-ouT

Reflective thermal paint
for the treatment of external surface

DESCRIPTION: REFLEX is a type of high-performance technical paint with nanotechnological formulation based on water, featurng highly reflective properties of infrared radiation, resulting in thermal insulation and energy cost containment.

USE: Applied as a finisching paint on both exterior surfaces.

COMPOSITION: Water, purest calcioum carbonate, thermosetting resins, nano-silicon reflective agents, ceramic microspheres.

PROPERTIES OF THE PAINT:

- Reflection of infrared radiation;
- Reduction of thermal conduction and water repellency;
- Energy savings by reducing the absorbed temperature of the substrate, leading to a decrease in thermal expansion stresses;
- Decreases heat transfer to the mansory;
- Reduces and prevents thermal bridges;
- Anti-fungal action and protection against mold formation;
- Water-based paint with low VOC content;
- Improves water impermeability while maintaining vapor permeability;
- Compatibility with various substrates;
- Does not contain metals;
- Excellent opacity and coverage;
- High wash resistance;
- Easy application on surfaces;
- Protects painted surfaces and enhances the energy efficiency of the building;
- Long-term stability.

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PREPARATION: Mix the blend (recommended at a temperature not lower than +8°C) using a mixing drill until the product is completely homogeneous in a fluid consistency. If too thick, add small amounts of distilled water. Clean the substrate thoroughly before proceeding with the coating application.

APPLICATION: Apply on clean supports, free from dust and inconsistent parts, salts, grease, mold, or lichens, using a brush, roller, or spray, at a thickness of approximately 0.1 mm per layer. The second application should be applied after the hardening of the first layer. For optimal performance, at least two layers should be applied.

TECHNICAL AND PERFORMANCE DATA:

CL-50

ESTERNO / OUTDOOR

PERFORMANCE MEASURED IN A CLIMATE CHAMBER:

Thermal conductivity	< 0,1 W (mk) ISO8302 (EN12667:2004) 10 times lower than regular paint.
Thermal radiation reflection	90% of the infrared light region. (700nm – 2,2 µm ASTM G173)
Water permeability	"non-permeable" with water according to the standard EN ISO 1062- 3:2008
Fungal resistance	Excellent resistance to fungi and algae, class 1 according to theBS3900:G6:1989
COV	Max 12 gr/L
Aspect	White creamy paste or color swatch folder
pH	12
Specific weight	ca. 1,00 Kg./Lt (+/- 0,5%) circa a 20° C.
Drying time	To the touch 45', in depht 24h a 20°C

Improvement of thermal resistance	0,36 R (m^2 K/W) (improvement + 34 %)
Thermal phase shift	1 ore. Wa (h)
Surface to surface thermal conductivity	Λ 0,25 (W/ m^2K) (improvement - 26 %)
Wall thermal resistance	RT: 0.36 (m^2 K/W) (improvement + 29 %)
Heat transmission from space to space (U-value)	0,18 U (W/ m^2K) (improvement - 21 %)
Periodic heat transmission (U-value)	0,12 Yie (W/ m^2K) (improvement - 50 %)
Heat attenuation or loss factor	-0,10 fa(-) (improvement - 34 %)
Norme di certificazione	UNI EN ISO 13786:2007 + UNI EN 1934:2000
Laboratorio Certificatore	CMR : Center Materals Research

WARNING: Do not apply at temperatures below +5°C or above 35°C. Protect the product from freezing in the first 48 hours after application. Do not exceed the recommended amount of water in the mixture. The use of antifreeze additives, which may compromise the workability and performance characteristics of the product, is not recommended. Do not apply in windy conditions or when rain is imminent.

PROTECTION:
May cause eye irritation. Wear protective goggles during application. In case of eye contact, rinse with plenty of water.
May cause skin irritation. Wear protective gloves during application. In case of skin contact, wash with plenty of water and soap.
Thoroughly wash hands after use.
In case of skin irritation, consult a doctor immediately.

Expiration and storage: 12 months from the production date. Store in a protected area.

NOTES: The product is intended for professional use, and application involves checking suitability for the intended use and assuming responsibility for the consequences of use. Data is obtained from laboratory measurements, certifications, and on-site tests. The manufacturer reserves the right to make updates, variations, or improvements to the technical data without notice.

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DISTINCTIVE FEATURES

The Mediterranean area, for its climatic characteristics, is significantly affected by technologies capable of optimizing energy performance for the summer cooling of air-conditioned buildings and thermal comfort conditions for users in non-air-conditioned buildings.

This issue is highly relevant due to the widespread phenomenon of climate change, with rising temperatures peaking in large residential settlements, primarily caused by the urban heat island effect. Additionally, there is an expansion of summer air conditioning even in the category of buildings, typically residential, that until recently lacked mechanical cooling systems.

The ever-increasing demand for comfort, coupled with the actual rise in temperatures, has triggered an escalation in electrical consumption that is still ongoing. It is reasonable to presume that the problem, currently typical of Western regions, will have serious repercussions in the near future. As the demand for comfort and the financial capacity of a significant portion of the population worldwide increase, this process is expected to become extremely perilous for shared energy and environmental goals.