THERMOFLEX PAINT

1. FEATURES AND APPLICATION FIELDS
THERMOFLEX PAINT is a high-performance thermoreflective elastosiloxane paint designed for façade protection, energy efficiency, and long-term durability.
This innovative water-based formulation, ideal for residential, commercial, and industrial buildings, combines the flexibility of elastomeric resins with the breathability and water-repellency typical of siloxane finishes, ensuring a stable, weather-resistant, and long-lasting coating.

Thanks to the use of high solar reflectance pigments and fillers, THERMOFLEX PAINT reflects over 86% of incident solar energy, significantly reducing overheating of external surfaces. Its high infrared emissivity (ε > 0.84) enables rapid dissipation of accumulated heat, contributing to a surface temperature reduction of up to 8–10 °C during summer months.

This combined action translates into energy savings of up to 20–30% in cooling expenses for buildings located in hot climates or with high sun exposure. In particularly extreme environments, such as the Middle East, savings can exceed 40%, significantly reducing air conditioning use and improving indoor comfort.

The product is highly breathable, allowing moisture vapor to escape from the substrate, while also being water-repellent, blocking the ingress of rainwater. This hygroscopic balance ensures building envelope protection even under high humidity and thermal fluctuations.

The flexibility of the dry film allows the coating to follow micro-movements of the substrate (plaster, fiber cement, concrete), preventing the formation of cracks. Moreover, THERMOFLEX PAINT is enriched with broad-spectrum biocides that effectively protect surfaces from algae and mold, making it ideal for north-facing façades, marine environments, or areas with high humidity.

MAIN ADVANTAGES
• Very high solar reflectance (SR = 0.861): lowers surface temperature and reduces summer energy demand
• High IR emissivity (hemispherical ε = 0.841): promotes the dissipation of radiated heat
• SRI > 107: significantly exceeds LEED/BREEAM minimum requirements for reflective roofs and façades
• Flexible film: prevents micro-cracking and withstands thermal expansion and contraction cycles
• Breathable: allows water vapor to escape from the substrate
• Water-repellent: prevents the absorption of rainwater
• Biological protection: long-lasting action against algae, mold, and microorganisms
• Matte and smooth aesthetic finish: also suitable for prestigious or historic buildings
• Environmentally friendly: water-based, low VOC content2.

3. APPLICATION METHOD
Suitable substrates include fine lime and/or cement-based mortar, mixed mortars, and mineral or synthetic paints and coatings that are perfectly dry and cohesive.
Apply one coat of SILOSSANA PRIMER diluted 100% with water; after 12 hours, apply one base coat of THERMOFLEX PAINT diluted with 40% water in the selected color; after another 12 hours, apply the second coat of THERMOFLEX PAINT, diluted with a maximum of 20% water.
Do not apply on substrates where rising damp or water infiltration has been detected.

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4. TECHNICAL DATA

SPECIFIC WEIGHT: 0.950 Kg/L ±3%
FILM APPEARANCE: Matte
VISCOSITY (ASTM D2196): 18,000 cps (R6, RPM 20)
DRYING TIME:
– Touch dry: approx. 4 hours at 20°C with relative humidity below 60%
– Fully dry: approx. 48 hours at 20°C with relative humidity below 60%

APPLICATION TEMPERATURE: between 5°C and 30°C
COVERAGE: 2.8 – 3.5 m²/L (in two coats)
WATER VAPOR PERMEABILITY: sd = 0.15 m (UNI 8202/43)
WATER ABSORPTION: W24 = 0.02 Kg/m²·h$^{0.5}$ (DIN 52013)
CRACK-BRIDGING ABILITY (EN 1062-7):
– Crack bridging (μm): 1600
– Result/class: A4 (> 1.25 mm)
– Result/class: B2

TOTAL SOLAR REFLECTANCE (SR) (ASTM E903-20): 0.861 ± 0.012
HEMISPHERICAL INFRARED EMISSIVITY ε (UNI EN 15976:2011): 0.841
SOLAR REFLECTANCE INDEX (SRI) (ASTM E1980-24):
– 108.5 (low wind)
– 107.9 (medium wind)
– 107.6 (high wind)

PACKAGING: PP containers of 4 and 14 L
APPLICATION METHODS: brush, roller, spray
DILUTION: 10–30% with water for brush or roller application
STORAGE: 24 months in unopened containers, protected from temperature fluctuations
HS-CODE: 32091000

5. SPECIFICATION ITEM

Decoration and protection of external surfaces with high-performance thermoreflective elastosiloxane paint, such as THERMOFLEX PAINT by Spiver S.r.l., based on an elastomeric emulsion modified with siloxane resin, selected fillers, pigments resistant to light and atmospheric agents, and specific additives.
The substrate shall be previously treated with one coat of SILOSSANA PRIMER by Spiver S.r.l., diluted with 50% water, followed by the application of one coat of THERMOFLEX PAINT diluted with 40% water, and a second coat of THERMOFLEX PAINT diluted with 20% water, in the color chosen by the Site Manager.
The price includes materials and application, excluding scaffolding, per m²: €……

N.B. The above data are subject to change. Spiver S.r.l. assumes no responsibility for negative results arising from applications carried out outside its control or due to factors unrelated to the product quality.

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