

THERMAL PAINT



ISONEM THERMAL PAINT is an elastomeric resin-based, contains special vacuum microspheres, have vapor-permeability, water-based, a low thermal conductivity, high sunlight absorbency, and high surface heat transmission value. Its activity is scientifically proved special insulating paint which provides the thermal and water insulation in the interior and exterior facades. It provides energy savings to buildings of up to 40% depending on the application layers number in heating and cooling energy costs. When the **ISONEM THERMAL PAINT** with special vacuum microspheres is used as interior wall paint, it reflects the radiant heat generated inside to the interior environment, and when it is used on the exterior, the incoming radiant heat is reflected back to the outside. When used on roofs, it reflects a minimum 80% of the sun's rays thanks to its ceramic-reinforced formula. While the water never passes from the film surface applied **ISONEM THERMAL PAINT**, the moisture inside the building evaporates away from the structure.

PROPERTIES

- Radiant heat proof, saves up to 40% energy.
- Applicable to internal and external surfaces, labor costs are low and easy to apply.
- It prevents the formation of moisture and mold in the wall.
- It has water and sound insulation feature.
- It has late flammability and nonflammability.

APPLICATION INFORMATION

Surface preparation: Surfaces to be applied should be free of dirt, oil, paste, grease, loose parts and other foreign materials. The appropriate primer selection for surface is made according to the following table. **ISONEM UNIVERSAL PRIMER** (1: 7 diluted with water - 1 part primer, 7 part water) insulation and paint primer should be applied one layer with 100 - 200 g/m² consumption. The primer is then allowed to dry for 4 hours. In steel/metal surfaces, the surface should be primed with **ISONEM ANTI RUST PRIMER** (Anticorrosive primer), consumption of 0,250 - 0,350 kg/m².

Application method: **ISONEM THERMAL PAINT** must be mixed thoroughly before use. In exterior applications, 2 to 3 coats can be applied by roller or brush without diluting the product. In interior applications, it should be applied as 1 or 2 coats according to color and hiding power. It is recommended to apply 2 - 3 coats in roof applications. It is recommended that each coat be painted perpendicular to the previous coat. It can be applied by taking into consideration the drying processes. The second and third layer should be applied after the first layer has dried. Wait for 4 hours between two coats.

TECHNICAL SPECIFICATIONS

- **Density (25°C, g/mL)** : 0,70 ± 0,15
- **pH (25°C)** : 7,0 - 9,0
- **Solid content (% Weight)** : 45 ± 2
- **Solid content (% Volume)** : 65 ± 2
- **Water transmission rate (kg/ m². h^{0,5})** : < 0,1 CLASS W₃
- **Adhesion strength by pull-off test (N/mm²)** : Crack bridging flexible systems without trafficking ≥ 0,8
- **Permeability to water vapour (m)** : 5 ≤ S_p ≤ 50 CLASS II
- **Certification** : TSE K 127 THERMAL PAINT
- **Class** : COLD CLIMATE PAINT
- **Brightness** : N/A (not applied)
- **Wet abrasion resistance (µm)** : CLASS II
- **Covering power (m²/L)** : CLASS I
- **Dry film thickness** : CLASS E₃
- **Grain size** : CLASS S₂
- **Crack covering feature (µm)** : not required, CLASS A₀
- **Carbon dioxide permeability (g/m². d)** : not required, CLASS Co
- **Surface heat transmission value (ε)** : min. 0,80
- **Sunlight absorbency value (α)** : 0,820, min. 0,80
- **Thermal paint surface resistance (RS)** : 0,0495 ± 1,5 %
- **Heat conductivity coefficient (W/mK)** : 0,023, λ<0,060
- **Impact resistance** : no cracking & rupture
- **Solvent** : Water
- **Color** : All requested can be produced in colors
- **Product consumption** : max. 300 mL/m² (in interior applications), 1 L/m² (for 1 mm thickness), 2 L/m² (for 2 mm thickness)
- **Paintable (Coverage) Area** : 5 L: 3,5 - 5 m²/bucket, 10 L: 7 - 10 m²/bucket, 18 L: 12 - 18 m²/bucket not required,

PACKAGING & STORAGE

- **Packaging** : 5 L, 10 L ve 18 L in PP buckets
- **Storage temperature (°C)** : 5 - 35 °C
- **Shelf life** : 24 months from date of production if stored in original, unopened, undamaged packages.
- **Storage condition** : Store tightly closed in a dry and cool place.

! IMPORTANT

Consuming more or less can lead to inefficiency and side effects.

The surface should be protected from rain, water, mechanical loads and impacts for 24 hours during and after the application.

APPLICATION CONDITIONS and RISKS

Things to consider during and after the application

The application surface must be clean and free from all impurities like dirt, oil, and mud. The surface to be applied with Thermal Paint must be breathable, if it is to be applied to the painted surface, your existing paint must have this feature.

Other ISONEM products recommended

In primer application, **ISONEM UNIVERSAL PRIMER** or **ISONEM ANTI RUST PRIMER** specified in the table below should be used depending on the application surface.

Application temperature

It should be applied between 5 - 35°C.



General Features



Elastic Structure



Sound Insulation



Thermal insulation



Provides %100 Waterproofing



B S1 d0 Fire Class



Hygienic, does not contain any harmful substances



Helps to prevent mold and moisture formation



Helps to prevent condensation



Can be customized with color chart



UV Resistance



CONCRETE



MARBLE, GRANITE



RAW WOOD



TILE, CERAMICS



MEMBRANE, SHINGLE



STEEL, METAL

	CONCRETE	MARBLE, GRANITE	RAW WOOD	TILE, CERAMICS	MEMBRANE, SHINGLE	STEEL, METAL
Application	Vertical / Horizontal	X	Vertical / Horizontal	Vertical / Horizontal	Vertical / Horizontal	Vertical / Horizontal
Surface Humidity	Dry surface	X	Dry surface	Dry surface	Dry surface	Dry surface
Application Tools	Roller, brush, spray	X	Roller, brush, spray	Roller, brush, spray	Roller, brush, spray	Roller, brush, spray
Primer Usage	ISONEM UNIVERSAL PRIMER (diluted)	X	ISONEM UNIVERSAL PRIMER (diluted)	ISONEM UNIVERSAL PRIMER (diluted)	ISONEM UNIVERSAL PRIMER (diluted)	ISONEM ANTI RUST PRIMER
Primer Consumption	100 - 200 g/m ²	X	100 - 200 g/m ²	100 - 200 g/m ²	100 - 200 g/m ²	250 - 350 g/m ²
Product Usage	1 - 2 layers (interior) 2 - 3 layers (exterior) 2 - 3 layers (roof)	X	1 - 2 layers (interior) 2 - 3 layers (exterior) 2 - 3 layers (roof)	1 - 2 layers (interior) 2 - 3 layers (exterior) 2 - 3 layers (roof)	1 - 2 layers (interior) 2 - 3 layers (exterior) 2 - 3 layers (roof)	1 - 2 layers (interior) 2 - 3 layers (exterior) 2 - 3 layers (roof)
Product Consumption	1 L/m ² (For 1 mm thickness) 2 L/m ² (For 2 mm thickness)	X	1 L/m ² (For 1 mm thickness) 2 L/m ² (For 2 mm thickness)	1 L/m ² (For 1 mm thickness) 2 L/m ² (For 2 mm thickness)	1 L/m ² (For 1 mm thickness) 2 L/m ² (For 2 mm thickness)	1 L/m ² 2 L/m ² (For 1 mm thickness) 2 L/m ² (For 2 mm thickness)
Between Two Coats	4 Hours	X	4 Hours	4 Hours	4 Hours	4 Hours
Touch-free Drying	2 Hours	X	2 Hours	2 Hours	2 Hours	2 Hours
Through Drying	72 Hours	X	72 Hours	72 Hours	72 Hours	72 Hours

Note : Drying times are approximate data, it may vary depending on ambient conditions.

