

# ISONEM<sup>®</sup> THERMAL PAINT



## Interior-Exterior Heat Insulation Paint

**ISONEM THERMAL PAINT** is a high performance elastomeric resin-based special coating developed within the framework of Space Shuttle Program by NASA. It has got low thermal conductivity value including ceramic micro- spheres. It ensures interior and exterior thermal insulation and waterproofing. The application saves energy up to 40% in heating and cooling costs in buildings depending on the number of floors. When special vacuumed ceramic sphere reinforced **ISONEM THERMAL PAINT** is used as a interior wall and ceiling paint, it reflects the radiant heat to outside again; and when it is used in exterior, sun rays reflect the radiant heat to outside again.

### Advantages of the product ISONEM THERMAL PAINT:

- Doesn't transfer radiant heat
- Reduces the energy demand necessary for heating up to 40%
- Applied on interior and exterior surfaces
- Application is simple and requires short period
- Prevents formation of moisture and mold on walls and ceilings.
- %300 elongation value, doesn't crack.
- Provides waterproofing and sound insulation
- Dirt-proof and easy to clean
- Has got combustion-retardant property
- It can be colored by color tubes to any color.

**APPLICATION:** Ensure the surfaces are clean and free of dirt, oil, rust, grease, loose parts and other foreign materials. Surfaces requiring primer should be primed with ISONEM UNIVERSAL PRIMER as one coat with consumption approximately 200-300 gr/m<sup>2</sup>. Wait for 4 hours in order to apply the main product. Afterwards THERMAL PAINT should be mixed thoroughly before use. The product is applied with a bursh or roller in three layers without dilution. After the first layer has dried, the second and third layer should be applied. Wait two hours between the layers.

**ENERGY- SAVING:** By Thermilate Europe Ltd. in England, ITU (Istanbul Technical University) test results; Selin Laboratories accredited by TURKAK

**Method:** The hot room test was applied by using infrared thermometer and thermocouple. (Thermilate)

**Method:** ISO 8301 (ITU)

**Method:** TS 825 (TURKAK - Selin Lab.)

### TEST DETAILS:

•Sample Thickness (Gypsum board+ Thermal Paint dry film): 0.0128 M •Dimensions: 0.302 x 0302 M •Air temperature: 25.25°C •Coated Surfaces Temperature: 18.06°C •Cold Surface Temperature: 13.53°C •Density of Heat Flow: 71.14 W/m<sup>2</sup> •Temperature Drop on Gypsum board / Air Surface: 11.72K •Temperature Drop inside the Air Surface Layer: 7.19 K •Temperature Drop inside Gypsum board: 4.53 K •Heat Resistance of Gypsum Board and Air Layer: 0.1635 m<sup>2</sup> K/w •Heat Resistance of Air Surface Layer: 0.1005 m<sup>2</sup> K/w •Heat Resistance of Gypsum Board and Coating: 0.063 m<sup>2</sup> K/w •Test Duration: 84 hours •Ambient Temperature in Building: 23°C •ITU (Istanbul Technical University) test according to ISO 8301; lambda value: 0.033. (Test Method ISO 8301 - Report No: 889a/14.08.2012) •Public Works unit price number: 04509/1 •TURKAK accredited Selin laboratory measurements lambda value (thermal conductivity value): 0.0233 •Thermal Resistance R = 0.0495. Made according to TS 825 method of measurement.

**Temperature Sensors:** Temperatures were measured by using thermocouple probes. Also, infrared light located between units was used.

**Method and Conditioning Temperature:** 2 samples were prepared and left for 7 days conditioning.

**Measured Errors:** Errors up to 3% were taken into account and the test was carried out 2 times.

**Thermal Energy Saving Results:** The increase in heat resistance of gypsum board of 9,5 mm coated with **ISONEM THERMAL PAINT** sample on a blank coating, is 20.2% in a single layered application.

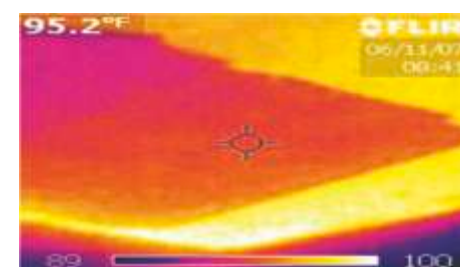
**CONSUMPTION:** 1 lt/m<sup>2</sup>

**PACKING:** 10 lt & 18 lt plastik pail

**SHELF LIFE:** By keeping the tap closed 1 year in a dry and cool place

**COLOUR:** White or in preferred colours

**STORAGE CONDITIONS/SHELF LIFE:** 12 months from date of production if stored properly in unopened and undamaged original sealed containers at temperatures between +5°C to +35°C at dry conditions. Protect from excessive temperature and frost.



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