

# **SEAL THERMAL-SHIELD IND** **INDUSTRIAL APPLICATIONS**



The High Tech **Eco-Friendly** Thermal Insulation Coating for Industrial Surfaces  
Improves efficiency and reduces energy costs

## Technical Datasheet



**Energy Saving**



**Waterproofs**



**Eco-Friendly**



**Sound Damping**

[www.seal-coatings.com](http://www.seal-coatings.com)



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### Conditions during application

The temperature of the substrate upon application should not be less than 8°C and at least 3 °C above the dew point of the air, measured in the vicinity of the substrate. Good ventilation is usually required in confined areas to ensure proper drying.

### Recommended film thickness / coat

Dry film thickness : 1000 microns (µm)\*

Wet film thickness : 1200 microns (µm)\*

\* Film thickness can vary on different types of industrial applications.

### Surface preparation

The substrate must be sound, clean, dry and free from dust, oil, grease etc. A light sanding with suitable abrasive material is recommended before application. Any resulting dust/loose particles must be removed.

### Drying times

The given below data must be considered as guidelines only. The actual drying time and time before recoating may be shorter or longer, depending on the ambient temperature, wind factor, film thickness, ventilation, and humidity.

Surface Temp.	10 °C	25 °C	40 °C
Surface (touch) dry	3h	1h	0.4h
Hard dry	10h	6h	3h
Dry for 2nd coat	4h	2h	1h

### Specification of airless spray

Nozzle tip: 0.021" - 0.027"

Spray angle degrees: 65° - 80°

Pressure at nozzle: 1200-2100 psi

Airless spray type: Diaphragm pump

### Health and safety (MSDS)

Safety Data Sheets (SDS) are available from Seal Coatings to help customers satisfy their own handling, safety and disposal needs and those that may be required by locally applicable health and safety regulations. For further questions consult your Seal Coatings agent.

### Storage

The product must be stored in accordance with national regulations. Keep the containers in a dry, cool, well ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

### Disclaimer

The information in this document is given to the best of Seal Coatings knowledge, based on laboratory testing and practical experience. Seal Coatings are often used under conditions beyond Seal Coatings control. Seal Coatings or authorized distributors or agents across the globe cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Seal Coatings reserves the right to change the given data without further notice.



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## Product description

Seal Thermal-Shield IND is a High Tech / High performance liquid applied thermal insulation and energy saving surface coating for industrial uses. Thermal-Shield IND coating having a high quantity of ceramic micro-spheres of vacuum beads in an elastomeric high grade acrylic resin emulsion outlasts other radiant heat barrier systems. Seal Thermal -Shield IND is applied on most substrates including that of concrete, metal, Stainless Steel, fibro-glass and plastic. Upon being applied on steel surface Seal Thermal-Shield IND will act as Rust Inhibitor by converting iron oxide into iron phosphate and thus eliminating further steel corrosion and is environmentally friendly.

## Typical applied surfaces

- Powder coated / galvanized metal
- Concrete
- Roof
- Fiber glass
- Perspex

## Specific gravity

0.9-0.95 kg/L

## Theoretical spread rate

0.8 m<sup>2</sup> / Liter @ 1200 Microns WFT

## Solid content

70% by volume ± 5 Volume %

60% by weight ± 5 weight %

## Approximate drying time

To re-coat: 4 hours, Fully dry 12 hours

## Equipment

Roller or airless spray application is recommended

## Thinning

Approx. 0%-5% with sweet water

## Packaging size

Available in 5 litres and 20 Litres (Pail)

## Suitable industrial applications

- Air conditioning ducts
- Animal shelters
- Automobile cabins
- Boilers
- Fuel/chemical storage
- Greenhouses
- Portable industrial offices
- Industrial steel buildings
- Shipping containers
- Skylights
- Exposed metals
- Steam pipelines
- Water tanks
- Storage tanks
- Industrail cabins
- Marine cabins
- Plant boxes
- Industrial machinery
- Silos
- and much more...

## Recommended system

<b>Primer on Concrete:</b>	Seal Acroprime	<b>1 Coat</b>
<b>Primer on metal:</b>	Seal Metprime	<b>1 Coat</b>
	Seal Thermal-Shield IND	<b>2 Coats</b>

## Product test and certificates

Type	Method	Results
Corrosion Resistance	ASTM G48-02	Coated 0.01% Uncoated 2.11%
Solar Reflectance	ASTM C 1549-09	88.3 (White)
Solar Reflectance Index	ASTM E 1980:01	110.5 (White)
Emittance	ASTM C 1371-04a	0.82
Thermal Conductivity	ASTM C 518-02	0.06 W/mK
Water Penetration	BS EN 12390	0mm @ 4kpa
VOC Content	BS EN ISO 11890:2	< 50 g/l
Adhesion Strength	ASTM D 4541-09	7.0 N/mm <sup>2</sup> Concrete
Abrasion Test	ASTM D 1044-99	0.9% Before 2.85% After
Fire Retardant	ASTM E 84	Class A
Elongation	ASTM C638-10	>200%

