

# **THERMOCOAT**

## (Anti-oxidation, Anti-erosion, Heat Resistant Coating)

Service Temperature: - 50° C to 1000° C, Colour: Golden

#### **Description**

**THERMOCOAT** is a solvent base High Temperature coating, which can be directly applied on metallic without any primer coating. Thermocoat is manufactured from selected petroleum base crudes, which provide stable, high quality coated surface that withstands high temperature without peeling-off. This coating is used in graphite and metallic heat transfer surface, due to its unique properties of heat emission and heat absorption.

After coating the surface, thermal emission (or absorption) of the surface will be increased by 27-30%, provided proper application procedure is followed. This coating increases the efficiency of heat exchanging system by 20-25% and reduces the heat load on the system, thus improving efficiency of heat exchanging equipment and enabling effectively heat transfer.

Thermo Coat is a high performance temperature resistant coating, which can be directly applied after surface preparation. Surface should be dust free, clean and dry (without any prior coating Thermo Coat is single coat application product, do not apply second coat, if second coat is applied then drying time should be 3 times of that of single coat.

Thermo Coat can be sprayed/ brushed on chimney, gas pipe line, heat exchanger tube (tube or fin type, graphite tubes), boiler (tube or shell), generators, radiators, outside kiln shell, Heat sink (power diodes, thyrister), solar heating systems, bus bar coatings, automobile engine coating.

#### **Salient Features**

- Prevents oxidation of coated surface.
- Directly applicable on metallic & non-metallic surface.
- Provides a non-abrasive surface after full curing time.
- Increases heat emission by 20-25% compared to normal uncoated surface (heat dissipation will be more).
- Does not peel-off from the coated surface at high temperatures.
- No effect of Acidic/ Alkaline atmosphere on coated surface.
- Provides a flame/heat retardant coated surface after proper curing.
- Very good thermal conducting material at very-very low temperature around -40°C.

#### **Scope of Application**

- Graphite Specialties
- Thermal Power Plants
- Cement & Steel Industries
- Petroleum Refinery.
- High Temperature Furnace.
- Boiler tubes-inside (anti-erosion)



Auto Electric Products Co. Coating Division

#### **Technical Specification**

1	Density	0.48 To 0.53 Kilograms/liter at room temperature
2	Curing/Drying Time	Touch dry in 4-5 hours but requires 24 hours to become fully dry. Air setting time depends on atmospheric conditions as well
3	Coverage factor	12-13 m <sup>2</sup> per Kilogram
4	Surface	Highly glossy, non-abrasive surface
5	Electrical Conductivity	Highly electrical conducting at elevated service temperature, as electrical conductivity improves with rise in temperature
6	Thermal Conductivity	Excellent
7	Chemical reactivity	Neutral against acidic and alkaline solutions/liquid.
8	Service temperature	-50° C To 1000° C
9	Storage	Container must be stored at room temperature $(10^{0} \text{ C} - 49^{0} \text{ C})$ . Once pack is open, material must be used immediately.
10	Shelf life	6-7 months from date of manufacturing in an unopened container
11	Thickness	70-120 microns
12	Packaging	20, 40 Kilograms
13	Safety	Thermocoat should be applied in open or well ventilated space
14	Cleaning of brush /spray gun	Use Thinner/ Monomer/ Ethyl Alcohol. To make coating brush-able: Keep in sunlight for about 1 hour.

**Method of Application:** Clean the surface by means of wire brush or emery paper to remove dust/ foreign material/ grease etc. Prepare clean and dry metallic surface to get the best results. Single coat of Thermocoat gives highly shining surface. After 24 hours of air curing, hard and non-abrasive surface is available which can withstand any thermal shock of higher temperature range up to  $1000^{0}$  C + 10%.

Caution: Do not use any metallic primer or any coating on the surface before the application of Thermo Coat.

### Designed and developed by:

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#### For more information, please contact:

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