Mascoat®
INDUSTRIAL-DTI

DTI

THERMAL INSULATING COATING
A SPRAY-APPLIED THERMAL INSULATING COATING FOR ALL PURPOSES




Mascoat Industrial-DTI is a composite thermal insulating coating that is formulated to provide thermal protection for tanks, vessels, boilers and other facility surfaces up to 350°F (177°C). This premium, multi-use product is a microscopic matrix of air-encapsulated particulates, which are suspended in a high-grade acrylic binder. The coating's high-tech formulation can be sprayed on as a combined paint and insulation system, improving equipment aesthetics while protecting substrates, safeguarding personnel from burns and preventing corrosion under insulation for years to come.

Mascoat Industrial-DTI has been tested to ASTM standards and exceeds most criteria for weatherability, adhesion, flexibility and UV resistance. Because of its proven durability and versatility, it is an ideal insulator for storage tanks, vessels, heat exchangers and transfer pipelines in a variety of industries — including paper & pulp, food & beverage, asphalt and petrochemical refining. For higher temperature applications up to 350˚F (177˚C) sustained, the coating can be applied in multiple layers up to 200 mils (5.0 mm) while still allowing for full inspectability of the substrate and easy maintenance.

Facilities that rely on Mascoat Industrial-DTI also enjoy improved personnel safety by protecting personnel from substrate burns and heat-related injuries. In fact, it is so effective that 40 mils (1.0 mm) of the coating can effectively protect personnel from burns on surfaces up to 275˚F (135˚C). In addition, the coating helps to stabilize interior equipment temperatures, which reduces energy loss, saves money, and improves manufacturing efficiency.

Contact Mascoat today to inquire about application forecasting and product pricing — or to ask about products that suit your specific project.

USES

- Tanks
- HVAC
- Boilers
- Cookers
- Pressure valves
- Piping
- Heat exchangers
- Steam lines
- Processors
- Vats
- Heaters
- And much more...

BENEFITS

- Provides thermal insulation
- Adheres to most substrates
- Prevent CUI (Corrosion Under Insulation)
- Provides personnel protection
- Increases efficiency and saves energy
- Vapor retardant
- Rapid application procedure reduces man-hours necessary for installation compared to conventional insulation
- Extremely lightweight
- Class A Fire Rating

SRI® · CRRC COOL ROOF RATING COUNCIL® · NSF Nonfood Compounds Program Listed (R2) (143241) · ENERGY STAR

This product is accepted for LEED Certification Points.

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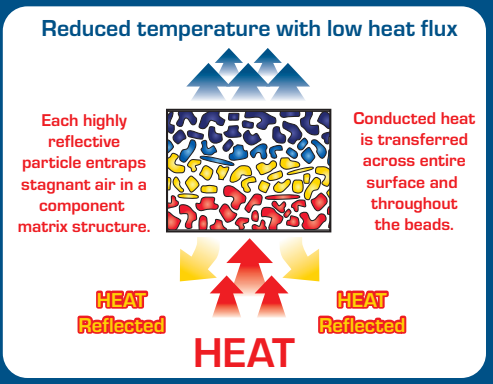
How does the coating work? Mascoat Industrial-DTI employs air-encapsulating particulates in a variety of shapes that do not allow for a straight line through the coating through which heat could pass efficiently. This high content of entrapped and stagnant air in a thin coating greatly reduces thermal transfer. Reducing the heat transfer will result in higher temperature exposed to convective loss due to air flow over the uncoated side of the substrate. This will result in less radiated heat transferring through the coated substrate. In addition, the coating's low emissivity allows for low heat flux, reducing surface temperatures and providing effective personnel protection. The combination of these factors allows for excellent thermal dissipation across the surface of the coating. The unique composition of the coating makes it extremely efficient for its thickness and prevents substrates from gaining heat, making those surfaces cool to the touch.



APPLICATION INSTRUCTIONS

Surface Preparation: The minimum requirements for carbon steel substrates is a solvent wipe in accordance with SSPC SP1 followed by power tool cleaning in accordance with SSPC SP3. Abrasive blasting in accordance with SSPC SP6 is preferred for longer service life. Surface must be free of all contaminants, both visible and non-visible, prior to application of the coating.

Primers: Primers are recommended for carbon steel substrates. Please consult Mascoat prior to application for the appropriate type of primer for a given environment. Mascoat Industrial-DTI is self-priming over non-ferrous materials such as stainless steel and aluminum.

Application: An airless sprayer is the best method for application of the coating. The sprayer should have a capacity of at least 1.5 gallon per minute at 3,000 PSI. Remove all strainers and filters from gun and sprayer before application. Failure to do so will result in the filtering of insulation particles. Please consult Mascoat for detailed instruction sheet, including list of sprayers, prior to application. A Small Application (SA) Kit can also be used for small applications under 100 square feet or touch ups. This specially-made kit can be obtained by contacting Mascoat. For full application instructions, please consult www.mascoat.com.

Brushing and Rolling: It is not recommended to brush or roll on Mascoat Industrial-DTI, as the insulating particles can be damaged and coating performance inhibited.

Thinning: Do not thin unless authorized in writing by Mascoat.

Mixing: Only mud mixing paddles, available from Mascoat, should be used to mix the contents of the pail. Use a 1/2" drill motor to stir. Make sure that drill is set to the reverse setting to ensure that the paddle will not mar the pail's inner wall and contaminate the coating.

Cleaning: All equipment can be cleaned with soap and water.

All data on this sheet was collected using ASTM procedures when applicable. Findings may be different due to application techniques and environmental conditions. Thermal conductivity is based on equivalency testing.

TECHNICAL DATA

All data is to ASTM standards when applicable

CONTAINER SIZE:	5 Gallons (18.92 Liters)
COMPONENTS:	One-part (inclusive)
COAT THICKNESS:	20 mils (0.5 mm) dry
COVERAGE PER GALLON: (COVERAGE PER LITER):	55–60 ft² at 20 mils (1.45 m² at 0.5 mm)
WEIGHT:	5.2–5.3 lbs per gallon (0.623 kg/liter)
VOLUME SOLIDS:	78–80%
SHEEN:	Flat
BASE:	High-grade acrylic water-based
CHLORIDES:	Low to none
VOC CONTENT:	0.06 lbs/gallon (7.6 grams/liter)
ELONGATION:	Above 30%
PERMEABILITY:	4.98 Perms
ACCELERATED AGING:	Excellent (6,000+ hours)
ABRASION RESISTANCE:	Moderate to high
THERMAL CONDUCTIVITY:	0.0698 W/m/K 0.4381 BTU-in/ft²-hr-°F
THERMAL EMITTANCE:	0.85
SOLAR REFLECTIVITY:	0.82–0.86
TRANSMISSIVITY:	0.0
EMISSIVITY:	0.85
ABSORBTANCE:	0.14–0.18
UV REFLECTION:	99.9%
FLAME SPREAD:	Class A
SMOKE DEVELOPED:	Class A
FIRE RATING:	Class A
APPLICATION TEMPS:	60–300˚F (10–148˚C) For instructions on applying at higher temperatures, please contact Mascoat.
PEAK OPERATION TEMPERATURE:	375˚F maximum (190˚C maximum)
SUSTAINED OPERATION TEMPERATURE:	350˚F maximum (177˚C maximum)
TOPCOATING:	Please contact Mascoat.
APPLICATION METHOD:	Airless sprayer