



Mascoat®

INDUSTRIAL-DTI



THERMAL INSULATING COATING

A SPRAY-APPLIED THERMAL INSULATING COATING FOR ALL PURPOSES



Mascoat Industrial-DTI is a composite ceramic insulator that's formulated to provide thermal protection for tanks, vessels, boilers and other facility surfaces up to 400°F (200°C). This premium, multi-use product is a microscopic matrix of air-encapsulated ceramic particles, 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 and preventing corrosion.

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 applications requiring more aggressive insulation, the coating can be applied in multiple layers while still allowing for full substrate viewing 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 addition, the science-based 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



Nonfood Compounds Program Listed (P2) (143241)

This product is accepted for LEED Certification Points

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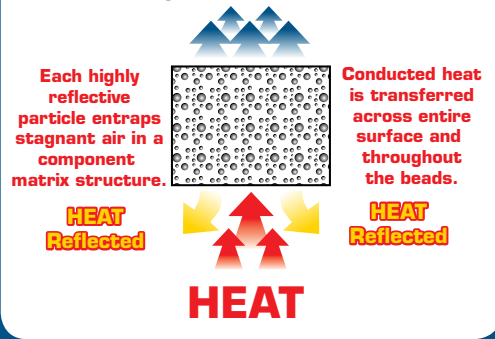


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How does the coating work? Mascoat Industrial-DTI applies the common physics principles of reflectivity, conduction, emissivity and absorbance. Its microscopic particle structure reflects a high percentage of the radiant heat gain back to the environment from which it originated. Each ceramic particle encapsulates air, thereby offering a slow path of thermal transfer. This high content of entrapped and stagnant air blocks thermal transfer very efficiently. In addition, the coating's low emissivity allows for low heat flux. The combination of these factors allows for total 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 cooler to the touch.

Reduced temperature with low heat flux



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.

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

Thinning: Thinning should not exceed one quart per five-gallon pail. Latex conditioners or water is a standard

thinning medium. If the product appears to require more than the recommended amount of thinning medium, please contact your Mascoat representative.

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.

Warranty: Five-year specific limited warranty if product is applied by a Mascoat Certified Applicator. To find a certified applicator in your area, please contact your Mascoat representative.

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.

All information listed on this sheet is ©2010 Mascoat.

DTI

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: 50–55 ft² at 20 mils
(COVERAGE PER LITER): (1.3 m² at 0.5 mm)
- WEIGHT: 5.2–5.3 lbs per gallon
(0.623 kg/liter)
- VOLUME SOLIDS: 78–80%
- COLOR: White, light grey, grey, black. Custom tinting upon request.
- 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
- EMISSION/
- 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)
- SUSTAINED
- OPERATION TEMPS: 400°F maximum
(200°C maximum)
- TOPCOATING: Please contact Mascoat.
- APPLICATION METHOD: Airless sprayer