



# ADITYA International Co

Engineered products powered by research



## Welcome to Aditya International

ADITYA INTERNATIONAL CO. has pioneered the concept of making "Maintenance a Profit Centre" through the use of high quality research based maintenance products and we are glad to inform that these products have been playing a significant role in reducing downtime of machinery and reduce maintenance cost.



### Dedicated Teams

Committed to helping its clients reach their goals, to personalising their experiences.



### True Partners

Our strong sense of identification with client projects means that we are constantly striving.



### Global Know-how

They aren't yet aware. we adopt progressive approach to technology and marketing techniques.



### Focus On Innovation

This sense of identification also means we value and promote seamless interaction.



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**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 protection for tanks, vessels, boilers and other facility surfaces up to 375°F (190°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
- 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



This product is accepted for LEED Certification Points

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# Mascoat

INDUSTRIAL - DTI



## Selection & Specification Data

<b>Product Name</b>	Mascoat Industrial-DTI
<b>Product No.</b>	MI-DTI
<b>Description</b>	Mascoat Industrial-DTI is a composite ceramic & silica-based insulating coating that provides an insulating barrier, protects personnel and blocks corrosion all in one application. The coating is specifically designed to be a multiple purpose coating solving painting and insulating issues.
<b>Features</b>	<ul style="list-style-type: none"> <li>◆ Excellent thermal insulation at low thickness</li> <li>◆ Excellent personnel protection</li> <li>◆ Prevents Corrosion Under Insulation (CUI)</li> <li>◆ Provides anti-condensation protection</li> <li>◆ Provides inspection ability w/o removal</li> <li>◆ Fast cure times</li> <li>◆ Low VOC Product</li> <li>◆ Highest volume solids insulation coating on the market</li> <li>◆ Easy application to irregular surfaces</li> </ul>
<b>Base</b>	Water-based Acrylic Insulation Coating
<b>Gloss</b>	Flat
<b>Priming</b>	Self priming over non-ferrous materials (stainless steel & aluminum). Primer required for carbon steel substrates.
<b>Topcoats</b>	Please consult Mascoat.
<b>Wet Weight</b>	5.2–5.3 lbs/gallon (0.63 kg/liter)
<b>Weight Dry Film To Area</b>	0.035 lbs/ft <sup>2</sup> at 20 mils DFT (0.170 kg/m <sup>2</sup> at 0.50 mm DFT)
<b>Practical Volume Solids Content</b>	78–80%
<b>Average Coat Thickness</b>	20–22 mils WFT at 70°–130°F (0.5 mm WFT at 21°–54°C)
<b>Practical Dry Coat Coverage</b>	50–55 ft <sup>2</sup> /gallon @ 20 mils (1.3 m <sup>2</sup> /liter @ 0.5 mm)
<b>VOC Content</b>	0.06 lbs/gallon (7.6 grams/liter)
<b>Limitations</b>	Applications should not exceed 375°F (190°C).
<b>Storage</b>	Do not subject wet coating in pail form to freezing conditions. Coating should be kept in a warehouse between 60°F and 90°F.

## Substrates & Surface Protection

<b>Surface Prep</b>	Surface should be dry and free of foreign matter. Surface prep can be used to NACE 1-3 (SSPC SP 5-6) when applicable.
<b>Ferrous Surfaces</b>	Should be primed prior to application of MI-DTI Insulating Coating. Since the coating is water-based, it is important to have a boundary layer of protection to prevent flash rusting.
<b>Non-ferrous Surfaces</b>	The coating can be applied directly to non-ferrous surfaces. Surface should be clean and free of any oil, dirt or other foreign matter.

## Application Equipment

Listed below are the general equipment guidelines for the application of this product.

<b>Airless Sprayer</b>	Pump Ratio:	33:1 or larger
	Volume:	1.5 gpm (5.7 lpm) or greater
	Hose:	3/8" or larger with no more than 3' of 1/4" whip. 1/2" hose recommended for length above 50'.
	Tip Size:	0.017" (for tight spots) 0.019–0.023" (Normal use)
	Pressure:	Minimum of 3000 PSI
<b>Small Spray Application</b>	Please consult Mascoat for the Small Application Sprayer. This sprayer is excellent for small applications and touch-ups.	
<b>Brush</b>	Brushing is only recommended for touch-up of less than 0.5 ft <sup>2</sup> (0.04 m <sup>2</sup> ). Brushing can inhibit coating performance. Please consult Mascoat for detailed brushing instructions.	
<b>Rolling</b>	Not recommended for this coating	

## Application Conditions

<b>Surface Temperatures</b>	Surface temperatures for applications should be greater than 60°F (15°C) or above. Lower surface temperatures will increase dry times.
<b>Applications</b>	<i>Ambient &amp; Cold (60°–139°F, 15°–59°C):</i> For temperatures (surface or ambient — whichever is lower), an initial tack coat is recommended of 10 mils (0.25 mm or 250 microns). This tack coat will help eliminate sag on vertical wall applications. Tack coat should be dry to touch prior to next pass. Typical coat thickness should not exceed 20–22 mils (0.5–0.55mm) wet. Coating can be reapplied after each coat is thoroughly dry. <i>Hot (&gt;140°F or &gt;60°C):</i> Please consult Mascoat.
<b>Application Thickness</b>	Product can be applied in successive coats to increase insulation ability. There are no upper limitations.
<b>Dryfall</b>	Dryfall within a 3 ft radius

## Other Coating Specifications

Item	English Value (Metric Value)	Test Method
Cyclic Salt Fog	Excellent 2000 hrs	ASTM B-117
UV-A Exposure	Excellent 2000 hrs	ASTM D-5894
Humidity Cabinet	Excellent 2000 hrs	ASTM D-4585
QUV	Excellent 2000 hrs	ASTM G-154
Permeability	Low — 4.98 perms (3.28 grams/24 hrs/m <sup>2</sup> /mm/hg)	ASTM 1653-03
Transmission	Low — 4.14 grains/hr/ft <sup>2</sup>	ASTM 1653-03
Cross Hatch Adhesion	5A	ASTM D-3359
Pull Apart Strength	260–360 psi	ASTM D-4541
Elongation Rate	Above 30%	ASTM D-638
Thermal Conductivity	0.4381 Btu-in/ft <sup>2</sup> -hr-°F (0.0698 W/m/K)	Thermal Probe Study
Thermal Emittance	0.85	ASTM C-1371
Solar Reflectivity	0.82–0.86	ASTM C-1549
Transmittance	0.00	Calculated
Emissivity/Absorbance	0.14–0.18	Calculated
Flame Spread	Class A	ASTM E-84/87
Smoke Developed	Class A	ASTM E-84/87
Cone Calorimeter	>6	ASTM E-1384-97

## Mixing & Thinning

<b>Mixing</b>	Only a mud mixing paddle should be used. Use 1/2" drill motor to stir contents with paddle. <i>Make sure drill is set to reverse to ensure that the paddle will not mar the bucket's inner wall.</i> Please consult Mascoat for paddle, if needed. <b>DO NOT MECHANICALLY SHAKE.</b>
<b>Thinning</b>	DO NOT THIN unless authorized in writing by Mascoat.
<b>Pot life</b>	Coating is one part, so no catalyzation is needed. Pail can be reused if properly sealed.
<b>Container</b>	5 gallon pail (18.92 liters)

## Package, Handling & Storage

<b>Container Wet (with pail/lid)</b>	27.5–28.0 lbs/5 gallon pail (12.47–12.7 kg/18.92 liters)
<b>Net Contents</b>	25.9 lbs/5 gallon pail (11.7 kg/18.92 liters)
<b>Flash Point (Setaflash)</b>	None
<b>Storage</b>	Do not subject wet coating in pail form to freezing conditions. Coating should be kept in a warehouse between 60°F and 90°F.
<b>Shelf Life</b>	18 months shelf life from manufacture date.
<b>Caution</b>	Do not let product freeze.

## Cleanup & Safety

<b>Cleanup</b>	Equipment may be cleaned with soap & water.
<b>Safety</b>	Half-face respirator recommended with ammonia cartridge or better. Eye protection recommended.
<b>Ventilation</b>	Recommended for constricted areas.
<b>Caution</b>	This material is not for human consumption.
<b>Clothing</b>	Safety clothing & gloves are recommended.

## Dry Times vs. Humidity

Surface Temperature	% Humidity	Time Between Coats (hours)
51–60°F (10–15°C)	10–30%	6.00
	31–50%	8.00
	51–70%	10.00
	>70%	12.50
61–70°F (16–21°C)	10–30%	4.00
	31–50%	5.50
	51–70%	6.50
	>70%	8.00
71–80°F (22–26°C)	10–30%	2.00
	31–50%	3.00
	51–70%	3.50
	>70%	4.00
81–90°F (27–32°C)	10–30%	1.50
	31–50%	2.00
	51–70%	2.50
	>70%	3.00
91–100°F (33–37°C)	10–30%	1.25
	31–50%	1.50
	51–70%	1.75
	>70%	2.00
101–110°F (38–43°C)	10–30%	1.00
	31–50%	1.25
	51–70%	1.50
	>70%	1.75
111–120°F (44–49°C)	10–30%	0.75
	31–50%	1.00
	51–70%	1.25
	>70%	1.50
121–130°F (50–54°C)	10–30%	0.50
	31–50%	0.75
	51–70%	0.75
	>70%	1.00

Use 90° thumb test or moisture meter prior to recoat. This is the estimated dry time for 15–20 mils (0.38–0.50 mm) of Mascoat Industrial-DTI wet. Dry time may vary depending on other conditions such as wind or enclosed environments. Lighter thickness passes will expedite dry times. Forced ventilation in confined areas will also expedite dry times.

## Cure Times

Temperature	Cure Time
50–60°F (10–15°C)	60–72 hrs
61–70°F (16–21°C)	48–60 hrs
71–80°F (22–26°C)	36–48 hrs
81–90°F (27–32°C)	20–24 hrs
91–100°F (33–37°C)	18–20 hrs
>100°F (>37°C)	14–16 hrs

The data within is true to the best of our knowledge on the date of publication and is subject to change without prior notice. We guarantee our products to conform to Mascoat quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. All logos are property of their respective owners.