



Delta T Industrial²

Selection & Specification Data

Product Name	Delta T Industrial Thermal Insulating Coating
Product Number	DTI GEN2
Generic Type	Water-based Acrylic Insulation Coating
Description	Delta T Industrial is a composite ceramic & silica based insulation coating that provides an insulating barrier, protects personnel and blocks corrosion all in one application. Delta T Industrial is specifically designed to be a multiple purpose coating solving painting and insulating problems.
Features	<ul style="list-style-type: none"> ◆ Excellent thermal insulation at low thicknesses ◆ Excellent personnel protection ◆ Eliminates Corrosion Under Insulation (CUI) ◆ Provides anti-condensation protection ◆ Allows for inspection ability without removal ◆ Fast cure times ◆ No VOC product ◆ Highest volume solids insulation coating on the market ◆ Easy application to irregular surfaces
Gloss	Flat
Color	White, Light Grey, Medium Grey, Dark Grey, Tan. Custom tinting can be done at special request.
Priming	Self priming over non-ferrous materials (stainless steel & aluminum). Primers are required for carbon steel substrates.
Topcoats	Please consult Mascoat
Wet weight	5.00–5.10 lbs/gal (0.6 kg/liter)
Weight dry film to area	0.037 lbs/ft ² at 20 mils dft (0.181 kg/m ² at 0.50 mm dft)
Volume Solids Content	78–80%
Average Coat Thickness	20–22 mils WFT at 70°–130°F (0.5 mm WFT at 21°–54°C)
Practical Wet Coat Coverage	60–65 ft ² /gal @ 20mils (1.6 m ² /liter @ 0.5 mm)
Practical Dry Coat Coverage	50–55 ft ² /gal @ 20mils (1.3 m ² /liter @ 0.5 mm)
VOC Content	0.0 lbs/gal (1.57 grams/liter)
Limitations	Applications should not exceed 400°F (200°C) Do not subject wet coating in pail format to freezing conditions.

Substrates & Surface Preparation

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

Application Equipment

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

Airless Sprayer	<table border="0"> <tr> <td>Pump Ratio:</td> <td>33:1 or larger</td> </tr> <tr> <td>Volume:</td> <td>1.5 gpm (5.7 lpm) or greater</td> </tr> <tr> <td>Hose:</td> <td>3/8" or larger with no more than 3' of 1/4" whip. 1/2" hose recommended for length above 50'.</td> </tr> <tr> <td>Tip Size:</td> <td>.017" (for tight spots) .019–.023" (for normal use)</td> </tr> <tr> <td>Pressure:</td> <td>Minimum of 3000 PSI</td> </tr> </table>	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:	.017" (for tight spots) .019–.023" (for normal use)	Pressure:	Minimum of 3000 PSI
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Pressure:	Minimum of 3000 PSI										
Small Spray Application	Please consult Mascoat for the sprayer. This gun is excellent for small applications & touchups.										
Brush	Brushing is only recommended for touchup of less than 0.5 ft ² (0.04 m ²). Brushing can inhibit coating performance. Please consult Mascoat for detailed instructions regarding brushing.										
Roller	Not recommended for this coating										

Application Conditions

Surface Temperatures	Surface temperatures for applications should be greater than 60°F (15°C) or above. Lower surface temperatures will increase dry times.
Applications	<p><i>Ambient & 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 to 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.</p> <p><i>Hot (>140°F, >60°C):</i> Application of Delta T Industrial should be applied as per Mascoat detailed hot application instructions. Please consult Mascoat for instructions.</p>
Application Thickness	Product can be applied in successive coats to increase insulation ability. There are no upper limits of total film thickness.
Dryfall	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 (3.28grams/24hrs/m ² /mm/hg)	ASTM 1653-03
Transmission	Low—4.14 grains/hr/ft ² (0.64 grams/24 hrs/cm ²)	ASTM 1653-03
Cross Hatch Adhesion	100% 5 B	ASTM D-3359
Pull Apart Strength	260–300 psi	ASTM D-4541
Elongation Rate	Above 30%	ASTM D-638
Thermal Conductivity	0.670Btu-in/ft ² -hr-°F (0.097 W/m/K)	ASTM C-177
	0.091Btu-in/ft ² -hr-°F (0.0131 W/m/K)	RvE Testing
Emissivity	0.15	Calculated
Reflectivity	0.85	E-903
Transmittance	0.00	Calculated
Absorptance	0.15	Calculated
Flame Spread	5	ASTM E-84
Smoke Developed	5	ASTM E-87
Cone Calrimeter	>6	ASTM E-1384-97

Mixing & Thinning

Mixing Only a mud mixing paddle should be used. Use 1/2" drill motor to stir contents with paddle. *Make sure drill is set to reverse to ensure that the paddle will not mar the bucket's inner wall.* Please consult Mascoat for paddle, if needed.

Thinning Thinning is normally not needed in most applications. Please consult Mascoat for specific instructions, if thinning is desired.

Pot Life Coating is one part, so no catalization is needed. Pail can be reused if properly sealed.

Container 5 gallon pail
(18.92 liters)

Package, Handling & Storage

Container wet Weight with pail & lid 27.5–28.0 lbs per 5 gallon pail
(12.47–12.7 kg per 18.92 liters)

Net Contents 25.9 lbs per 5 gallon pail
(11.7 kg per 18.92 liters)

Flash Point (Setaflash) None

Storage Delta T Industrial should be kept in a storage area above 50°F (10°C) or above. Product can be reused if sealed correctly. It is best to keep the container out of direct sunlight for sustained periods of time.

Shelf Life One year shelf life from manufacture date

Caution Do not let product freeze.

Cleanup & Safety

Cleanup Equipment may be cleaned with soap and water.

Safety Half-face respirator recommended with ammonia cartridge or better. Eye protection recommended.

Ventilation Recommended for constricted areas.

Caution This material is not for human consumption.

Clothing Safety clothing & gloves are recommended.

Dry Times vs. Humidity

Surface Temperature	% Humidity	Time Between Coats (hours)
50–60 °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 Delta T Industrial 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.

Curing Schedule

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

To the best of our knowledge the technical data contained herein is true and accurate 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.



Coating Society
of the Houston Area

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