



## Delta T Marine<sup>2</sup>

### Selection & Specification Data

<b>Product Name</b>	Delta T Marine Thermal Insulating Coating
<b>Product Number</b>	DTM GEN2
<b>Generic Type</b>	Water-based Acrylic Marine Insulation Coating
<b>Description</b>	Delta T Marine is a multi-purpose coating that provides thermal insulation and anti-condensation protection. It combines painting and insulating solutions for marine vessels and provides drastic reduction in temperatures for its thickness.
<b>Features</b>	<ul style="list-style-type: none"> <li>◆ IMO/SOLAS compatible</li> <li>◆ MED Certification</li> <li>◆ Provides anti-condensation protection</li> <li>◆ Dramatically reduces heat absorption due to radiant heat gain</li> <li>◆ Excellent personnel protection</li> <li>◆ Easy application characteristics</li> <li>◆ Applies to almost any surface</li> <li>◆ Extended recoat window</li> <li>◆ Fast drying and curing rates</li> <li>◆ No harmful volatile organic compounds</li> </ul>
<b>Gloss</b>	Flat
<b>Color</b>	White and Light Grey. Custom tinting can be done at special request.
<b>Priming</b>	Self-priming over non-ferrous materials (stainless steel & aluminum). Primers are required for carbon steel substrates.
<b>Topcoats</b>	Please consult Mascoat
<b>Wet weight</b>	5.10–5.20 lbs/gal (0.6 kg/liter)
<b>Weight dry film to area</b>	0.037lbs/ft <sup>2</sup> at 20 mils dft (0.181 kg/m <sup>2</sup> at 0.5 mm dft)
<b>Volume Solids Content</b>	80–82%
<b>Average Coat Thickness</b>	20–22 mils WFT at 70°–130°F (0.5 mm WFT at 21°–54°C)
<b>Practical Wet Coat Coverage</b>	60–65 ft <sup>2</sup> /gal @ 20mils (1.6 m <sup>2</sup> /liter @ 0.5 mm)
<b>Practical Dry Coat Coverage</b>	50–55 ft <sup>2</sup> /gal @ 20mils (1.3 m <sup>2</sup> /liter @ 0.5 mm)
<b>VOC Content</b>	0.0 lbs/gal (1.57 grams/liter)
<b>Limitations</b>	Applications should not exceed 225°F (107°C) or peak areas above. Do not subject wet coating in pail format to freezing conditions.



### Substrates & Surface Preparation

<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 Delta T Marine. Since the coating is water-based, it is important to have a boundary layer of protection to eliminate flash rusting.
<b>Non-ferrous Surfaces</b>	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.

<b>Airless Sprayer</b>	<table border="0"> <tr> <td>Pump Ratio:</td> <td>33:1 or larger</td> </tr> <tr> <td>Volume:</td> <td>1.5 gpm (5.6 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 (5.6 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										
<b>Small Spray Application</b>	Please consult Mascoat for the sprayer. This gun is excellent for small applications & touchups.										
<b>Brush</b>	Brushing is only recommended for touchup 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 instructions regarding brushing.										
<b>Roller</b>	Not recommended for this coating										

### Application Conditions

<b>Surface Temperatures</b>	Surface temperatures for applications should be 60°F (15°C) or above. Lower surface temperatures will increase dry times.
<b>Applications</b>	<p><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 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 (0.50–0.55 mm) wet. Coating can be reapplied after each coat is thoroughly dry.</p> <p><i>Hot (&gt;140°F, &gt;60°C):</i> Application of Delta T Marine should be applied as per Mascoat detailed hot application instructions.</p>
<b>Application Thickness</b>	Product can be applied in successive coats to increase insulation abilities.
<b>Forced Ventilation</b>	Forced ventilation should be used to help coating dry and hang on vertical surfaces. Air movement should be both in/out during drying process.
<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 (3.28grams/24hrs/m <sup>2</sup> /mm/hg)	ASTM 1653-03
Transmission	Low-4.14 grains/hr/ft <sup>2</sup> (0.64 grams/24 hrs/cm <sup>2</sup> )	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	0.660 Btu-in/ft <sup>2</sup> -hr-°F (0.095 W/m/K)	ASTM C-177
	0.090Btu-in/ft <sup>2</sup> -hr-°F (0.0130 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 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>Thinning</b>	Thinning is normally not needed in most applications. Please consult Mascoat for specific instructions, if thinning is desired. Thinning can also be used to help coating aesthetically.
<b>Pot Life</b>	Coating is one part, so no catalization is needed. Pail can be reused if properly sealed.
<b>Container</b>	5 gallon pail (18.92 liters)

## Package, Handling & Storage

<b>Package wet weight including pail &amp; lid</b>	27.5-28.0 lbs (12.47-12.7 kg)
<b>Net Contents</b>	25.9 lbs (11.7 kg)
<b>Flash Point (Setaflash)</b>	None
<b>Storage</b>	Product should be kept out of direct sunlight and stored in a climate controlled warehouse with temperatures ranging from 50°F to 110°F (10°C to 43°C).
<b>Shelf Life</b>	One year shelf life from manufacture date
<b>Caution</b>	Do not let product freeze.

## Cleanup & Safety

<b>Cleanup</b>	Equipment may be cleaned with soap and 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)
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 to ensure coating is dry. These are the estimated dry times for 15-20 mils (0.38-0.5mm) of Delta T Marine 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. Logos are registered properties of their respective owners.