



Mascoat
P R O D U C T S

The Industry Leaders in Insulation Coatings

**Why Paint
And then
Insulate?**

Applications Instructions

Delta T Marine or Industrial Generation 2

Delta T must be mixed and applied properly to achieve all of its insulating qualities. All application instructions are detailed on each pail. Please use these instructions as well to help guide you through your application. If directions are not followed, product will not achieve full insulating benefits. Failure to follow directions will void all warranties.

Before application of Delta T Insulating Coatings it is vital that the surface temperature of the substrate be at least 60°F (13°C) prior to application. Since the resin system is a thermal-set acrylic, it will not catalyze until the temperature is above 60°F (13°C). Lower ambient temperatures may be present. The important factor is that the surface temperature of the substrate remains above the defined temperature.

In colder climates and if product is stored for prolonged periods under 50°F (10°C), there may be advanced separation of the product. It is important that all containers of Delta T are thoroughly mixed prior to application to insure proper bonding and performance.

Surface Preparation for Metal Applications

Galvanized Steel, Stainless and Aluminum Substrates

- If surface is new galvanized, stainless, and aluminum metal, a light vinegar wash is required prior to application of Delta T Coating. This wash is to insure that all oils and protective compounds are removed from the surface.
- If the surface is older galvanized, stainless, and aluminum metal and somewhat dirty, a light pressure wash is recommended prior to the application of Delta T Coating.
- Make sure that all degraded substrates are either repaired or replaced prior to the application of the coating.
- On some surfaces, light sanding can be done to give added tooth for product adhesion. 180-220 grit sandpaper is adequate to perform surface tooth for product.

Preparation for Bare Steel Substrates

- We recommend a good primer system. Primers are really dependent on the environments that the substrate will be subjected to over duration and temperatures. Mascoat recommends using a primer system that will be capable

- to at least 20% higher temperature than the surfaces peak temperature will incur. Consult our primer reference sheet if more assistance is needed.
- Spray the primer system on all areas of the steel. Follow the directions for surface preparation for the primer.
 - Make sure that all areas of the steel including welds and touch up areas have been coating with the primer. Wait 24 hours to make sure primer is cured.
 - Delta T Coating can be sprayed directly on top of the primer without any other prep. If there is a large delay between coating primer and Delta T application, make sure that the area is clean and free of any foreign matter. This can be accomplished by wiping the surface down with a rag or air sweep.

It is extremely important to make sure that after cleaning; the substrate is completely dry before applying Delta T Coating. Since the coating is water based, all water must be evaporated from substrate for good adhesion properties.

Spray Application Instructions

Equipment needed for Spray application:

- Use only - Airless spray system – min. 1.0 gallons per minute at 3000 psi. Recommended sprayer Graco Bulldog or equivalent. Make sure equipment is good working condition prior to spraying. If seals are old or worn, replace prior to spraying Delta T Coating.
- 3/8" Spray Hose line only!
- Reversible nozzle with tip size .021" - .025". Tip size depends on area to be sprayed. For small areas smaller fan sizes should be used. For larger areas a 519-523 works well.
- Graco CONTRACTOR GUN with 3/8" hose or larger. ***REMOVE filters in gun or pickup tube.***
- Respirator or dust mask, paint suit or similar clothing are recommended.
- No more than 3' of 1/4" whip.
- Use a Graco Contractor, FTX or XTR gun or equivalent. Do not use a Graco Silver as this will hinder the flow rate of the coating.
- 1/2" Drill motor with reverse setting.
- 1/2" Sheet rock mud mixing paddle (blade style)*. Supplied with shipment.
- Pail opener and/or knife*
- Hopper or other 5 gallon pail
- Access to water

*If equipment cannot be readily available, please call Mascoat Products. We have the items that are designed for Delta T Coating application. Mascoat Products also manufactures a Small Application Sprayer (SA Gun) specifically designed for areas under 100 ft² (10 m²). This sprayer can be used with conventional air hose (3/8").

Please follow these directions closely. Failure to apply our coatings in conformance to these instructions will cause you time and application delays. If you have any questions or need assistance, please call us at 713.465.0304.

Directions for Spray application of Delta T Insulating Coatings

1. **Upon receiving Delta T, please inspect physical appearance of container.** Make sure that product is free of any punctures or tears. If punctures exist, please contact shipper or *Mascoat Products, Houston, TX. (713) 465-0304.*
2. **Open container with pail opener or other means.**
3. **Separation of this coating is natural due to its high loading of insulating particles.** DO NOT LET THIS ALARM you as it is natural. Use the mud mixing paddle provided or obtain one from a home improvement store. (Colder environments will make coating crustier and will need more stirring than in hotter environments.) See our website for more details.
4. **Place feet on sides of pail to hold pail from spinning. *Slowly* turn drill motor on *reverse setting only*. Stir on reverse setting only!** Reverse setting will insure that paddle will not scrape sides of pail and contaminate contents. Stir product until it resembles a milkshake like consistency (20-40 seconds) total in ambient conditions of 70°F or greater. Over mixing (more than 5 minutes in ambient conditions of 70°F) may destroy particles, thereby reducing insulating capabilities. Product should be free from any large particles. (Turning pails upside down 8 hours prior to application will make mixing easier.)
5. **REMOVE ALL FILTERS FROM GUN AND SPRAYER.** This is very important to make sure that insulation is not filtered. **Flush all solvents from sprayer with water.** Prime sprayer using water only with either gun removed from line or with orifice nozzle out of the spray gun. FLUSH 10-15 GALLONS OF FRESH WATER THROUGH SPRAYER TO INSURE REMOVAL OF ALL THINNERS OR FOREIGN DEBRIS. Delta T consistency requires peak performance of the seals in the pump unit. If seals are weakened or have developed small cracks, proper pressure is hard to achieve.
6. **Place pickup nozzle in product pail or hopper and prime product throughout sprayer.** Prime without gun or orifice nozzle. When product consistency is thick like, stop sprayer and attach gun or orifice nozzle. This may take a moment, as the system will have to bleed until pressure is reduced. Place tip in reversible head, place reversible nozzle on gun and insert tip. Product is now ready for application to substrate. Slight tip clogging may be more common initially as the product will have a tendency to clean the sprayer internals. If older lines are being used, tip clogging may last longer.
7. **Use sample area to adjust sprayer pressure.** With most large pneumatic sprayers, air pressure of 80-100 PSI is adequate if CFM is consistent. If CFM is reduced more pressure will be needed. Make sure to set pressure only high enough to stop fingering or keep pressure consistent. If pressure is not consistent then either there is a volume problem with the pump or not enough air supplied to the sprayer. It may take a minute to get the pressure right and achieve the spraying consistency. Make sure that the unit also has sufficient air flow so it does not starve the unit for power.
8. **Spray product onto substrate in a methodical fashion. Remember that this is a coating, not paint.** It is very important to insure an even coat throughout substrate.
9. **Drying times will be extended with high humidity or if colder conditions exist.** Coating may be applied up to max of 20-25 wet mil (0.5mm) layers. Normal

coat thickness is 20 mils (0.5 mm) per application. Usually four to six passes equals one full coat. The more coating the better the insulation. Normally dry times do not exceed one hour at 75°F ambient. **In colder conditions, application of heat and/or forced ventilation will be necessary to insure even coat thickness and alleviating risk of slides. Lighter milage procedure should also be used to help evacuate the water out of the coating at a faster rate. Confined spaces will need forced ventilation in all applications to keep humidity levels from rising due to water evaporation. For vertical surfaces a light tack coat of 8-10 mils (0.23-0.25mm) is recommend to insure proper hang. Use a wet mil gauge when applying the coating to insure proper thickness.**

10. **For cold weather installation, lighter passes of 8-10 (0.23-0.25) mils will expedite dry times.** This will also insure a nice even coating. With lighter milage, the coating will dry more quickly. To test for proper dryness, place your thumb onto test area of the coating and press down. Turn your thumb 90° and remove. If coating is left on your thumb, the coating is not fully dry. **IT IS HIGHLY VERY IMPORTANT TO INSURE FULL DRYNESS PRIOR TO NEXT COAT!**
11. **Coating should be measure with a dry mil gauge after each coat to insure proper thickness. Dry times will depend on temperature and humidity.**
12. **Cleanup is simple. Wash sprayer and all tools with water.**

First Aid:

If exposed to eyes: Flush eyes with clean water.

Skin contact: Wash with soap and water. If redness persists, seek medical attention.

CAUTION:

Proper OSHA approved respirators and goggles *are recommended* for your protection when using this product. Use only with adequate ventilation. When applying in closed area, open doors and windows or use other means to ensure fresh air circulation or forced ventilation during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air or wear respiratory equipment.

Tips and Techniques for Application of Delta T Coating

- Tape up all areas that are NOT to be covered.
- Turn pails upside down 8 hours prior to application. This will allow coating to become softer and easier to mix.
- Make sure that airless sprayer has a good fresh seal kit. Delta T Coating can be harsh on seals since it contains semi abrasive particles. This can scrub seals clean and trap any particles stuck on seals in the system. Therefore, if you have used your sprayer with solvent-based systems, we recommend a fresh seal kit prior to use of our product. Use leather seals if possible.
- Make sure to purge airless sprayer with plenty of water and recirculate for some time prior to placing pickup nozzle into product. We recommend flushing system with at least 15-20 gallons of water prior to any application. Pull orifice nozzle out of gun or remove gun to bleed any trash or unwanted items.
- Prime sprayer with product by removing spray nozzle orifice to insure that all trash is removed from system. This is especially important if sprayer is used often and lines are not new.
- Use ventilation fans to help evaporate moisture when spraying the coating inside confined areas. It is important to push air as well as remove it in confined areas as humidity will increase as the coating dries. This rise in humidity will lengthen the dry time. Air movement will aide in drying the coating.
- Spray a light 5-10 mil (0.25mm) coat initially of product and let it tack dry. This will help to deter sliding of product due to excessive milage initially. This will also expedite dry times.
- Spray more light coats more than one heavy one in colder climates.
- Work smart and think out strategy prior to spraying. Spray areas that are hard to reach prior to bulk of application. Use ladders and scaffolding if needed.
- If product is found in unwarranted space or area, clean immediately via water and scrubbing method.
- If product slides or blobs occur, smooth out with brush or let dry thoroughly prior to scraping.
- If spraying more than one coat, tinting can be used to differentiate coats. Standard acrylic tint can be used and found at most paint supply houses. A good method is to use a hopper system (see Hopper system). Mix one ounce of black (will tint the coating gray) tint per five-gallon pail. Pour the tint into the bucket after the coating has been mixed. Stir the tint into the coating briefly. Pour the coating through strainer into hopper system. Periodically mix the hopper with the paddle. By using

this method, a consistent color will emerge. **DO NOT TINT THE FIRST COAT!** It is important to keep the first coat white, as it will help differentiate the substrate and the insulating coating.

HOPPER SYSTEM

A hopper system can be an effective tool when spraying large amounts of the coating. A 20-30 gallon container is perfect for mixing and containing the product. The best system is to mix each pail pour the coating into the hopper. This works well when multiple guns are being used and consistent flow of product exceeds mix rate.

Place the pickup nozzle for the sprayer at one end of the container and periodically stir the hopper with the mud paddle. This system will allow the sprayer to have consistent product throughout the application.

Standards and Practices for Tinting:

1. Apply Delta T white for first coat! Tint final top color.
2. For Gray color - Use approx 1 oz of black tint for one five-gallon pail. If the desired color is to be darker gray, then add more tint. Be sure to measure how much tint is added and then use this same amount on additional pails. There is a point in which the coating will not achieve any darker appearance and you are just wasting tint.
3. If tinting, it is best to pour tint into premixed pail.
4. Be sure to agitate briefly to mix tint into Delta T Coating
5. Using a hopper (such as cut 55 gallon drum or plastic container of 20 gallons) will make for a more uniform color.
6. Pour tinted container into hopper until approximately 3 five-gallon pails worth of material are in hopper. Agitate hopper with paddle. This will blend the color to give an even shade of gray. It is also easier to spray out of this hopper system than if mixing and spraying out of five gallon pails.

Standards and Practices for Top-coating Delta T:

1. With topcoating it is vital to check with a Mascoat rep to insure the topcoat is compatible. Topcoats may affect performance of insulation qualities and normal procedure is to add an additional coat of the coating prior to using a topcoat.
2. Make sure that Delta T Coating has cured for 36-48 hours prior to any topcoat. This will insure that the coating has fully dried and will not affect any topcoat.
3. Since Delta T has a slight porous profile, no other prep is needed. The topcoat can be sprayed directly onto Delta T. The substrate needs to be free of dirt, dust and grime prior to the application. This can be accomplished by a light air sweep.
4. ***If in harsh conditions – Delta T can be top coated. It is recommended that an Acrylic topcoat is used over Delta T Products if not used in caustic environments.*** This system is similar in physical characteristics as Delta T and if used properly, should give lasting results. Delta T has been top coated with other coating such as epoxies, urethanes, and zinc based products. To date, we have not found any compatibility problems. Make sure that no accelerator products are used in conjunction with plural component systems.