



MetalTec TC

Application Advices

Equipment

Use airless sprayer with 210 k/cm² pressure, 4, 74 l/min flow, 28:1 ratio with a 0, 53 mm tip size.

A pneumatic Spray Gun using shop air can be used for small applications (up to 100 m²).

Allow product to dry between coats.

Brush may be used for touch up, but is not recommended for full application, except on surfaces under 4/5 m².

This is a one coat system with curing time of 12 hours under room temperature conditions.

Approximate Coverage: Spray: 1,23 – 1,47 m²/l at 0.4 mm thickness on large (100 m² or more) flat surface. Add 20% for uneven or corrugated surface.

1 Airless Sprayers

Graco Ultra 1000 or Ultimate 1000 (for small jobs) (electric hydraulic)

Graco GM 5000 (gasoline powered, self-contained unit)

Graco GM 7000 or 10000 (gasoline powered, self-contained unit)

Graco GH 533 or GH 733 (gasoline hydraulic)

Graco Bulldog (new series) 41:1 ratio

In Europe, Böllhoff line of products is also suitable (Taurus 200 45:1)

Sprayer must be capable of moving not less than 210 K/cm² at tip, 4,74 l. per minute and using a spray tip of approximately 0,53 mm - Spray Gun Tip Size: 0.021 (0.53 mm) for normal rooftop spraying or 0.017 (0,43 mm) for working in confined spaces.

Wagner Power Painter™ units (or similar) will not work with MetalTec TC.

MetalTec TC is too thick.

- We can offer European airless pump, complete with gun spray, nozzle, 15 meter hose, ratio 63/1, ex-stock Belgium., at very attractive conditions.

2 Pneumatic sprayer

Pneumatic spray gun using compressed air may be used for small jobs under 100 m², provided you have 8 bars pressure and the right nozzle (5 mm mini).

We suggest : Air Gunzo from Anest Iwata Group. Gun ref is AZ PVA



MetalTec TC

Application Advices

With the 1 liter bucket screwed to it, we worked easily around 7-8 bars.

With a 2 meter 15 mm OD hose, we could draw without problem from the 20 liters pail, but at 8 bars and flow was somewhat slower, although acceptable, considering no refill is required every one liter

Surface Preparation

Apply MetalTec TC on a dry, clean substrate which is free from oil, grease, wax, dirt, rust or corrosion. Although no primer is required, we recommend to prime the freshly grit blasted steel with a zinc red oxide to avoid flash rusting.

In case of high humidity make sure to wipe water drops with a cloth. The protected surface should have a temperature superior to 15 °C to avoid lengthy curing time.

Actually, the higher the temperature and the air circulation, the faster the curing.

Clean-Up: MetalTec TC is a latex based product. Clean up immediately after use with soap and water.

Caution: Use drop cloth and necessary protection to prevent damage from drips or over spray.

Advice for Application

1. Remove screens from sprayer feed tube, and remove all filters from sprayer and spray gun.
2. Remove top from 20 liters pail.
3. Take heavy duty "1/2" variable speed electric drill with handles, install a mud paddle.
4. Push the mud paddle through the crust at the top repeatedly, changing angles of the paddle to break up the crust (if any), pushing the paddle down into the liquid at the bottom of the bucket and pulling up through crust.
5. Insert paddle all the way through solids into the liquid, and start to slowly rotate the paddle, pulling the liquid and start to slowly rotate the paddle, pulling the liquid into the solid matter, holding sides of the pail with feet and knees to prevent spinning.
6. Mix slowly, until the MetalTec TC is the consistency of marshmallow cream. (Never use high speed)
7. Prime sprayer via bucket of clean water, typically at least 2 liters. Switch feed pipe of sprayer from water bucket to MetalTec TC feed bucket, with pump running and



MetalTec TC

Application Advices

sprayer spraying water which will keep water from backing up into MetalTec TC feed bucket.

8. When the 2 liters of water have been expelled through the spray gun, the pump will sound noticeably different and MetalTec TC will begin to flow.
9. If gun stops up, rotate the Reverse-A-Clean tip and spray into spare bucket. Rotate tip back to spray position, resume spraying.
10. Keep spare tip with you, and if one stops up, exchange for clean one, soak stopped-up unit in water and then clean out.
11. On metal roofs, spray one way and back again over same area, using a steady uniform motion.
12. Three passes with the spray gun will generally give you about a 0.8 mm coating. It is okay to have slight holidays or to see lightly covered metal through the products.
13. On very hot surfaces (hot pipe), apply one coat of 0.4/0.5 mm, and allow drying. Drying time depends on humidity, ambient and surface temperature. If surface is over 90 °C, add about 25 cl of water to 20 liters for better adhesion of the initial coat.

Hot Applications

1. Application directly on a hot surface

The technique for being able to spray MetalTec TC on a hot surface 93 °C to 260 °C while the system is operating, is simple, but a bit tricky. Additionally, ambient air temperature and humidity play a role. The higher the ambient air temperature, the better and the lower the humidity, the better.

- i. Recommended sprayer tip size is a 417 or 517
- ii. No matter how hot the surface, the first coat must be misted onto the surface at approximately 50 to 75 μ thick. The actual technique is to back away from the hot surface until such time as the product is adhering to the surface without bubbles. If you have bubbles, then you are too close - move back. Then continue the misting application until the first coat is adhered to the surface. With each coat, the applicator will be able to be closer to the surface and apply large amounts of product with each pass. If heat blisters form, then the applicator is too close to the surface and is applying the product too thick for that temperature.
- iii. Each coat should cure very quickly. However, each coat may take more time to cure as the surface temperature drops due to the insulating qualities of the prior coats of product.



MetalTec TC

Application Advices

iv. If blisters form during application, immediately scrap the blister off and reapply product from a greater distance from the surface. In other words, back up.

2. Application on a cold surface for hot operating temperatures

The technique for spraying MetalTec TC on hot operating temperature surfaces when turned off, thus at ambient air temperatures, is again simple, but tricky. Once again, ambient air temperature and humidity play a significant roll. The higher the ambient air temperature, the better and the lower the humidity, the better too. In this application, high humidity directly impacts the amount of moisture in the product and the time it takes for the product to cure. Always, high heat, low humidity is best.

- i. Recommended sprayer tip size is 421 or 521, although 19 tips or a 17 tip can also be used.
- ii. Each coat cannot exceed 381 μ of standard product or 762 μ of High Build product.
- iii. Cure time is at least 24 hours with as much heat and air flow as possible.
- iv. If at all possible, have the substrate heated, during coating, from the inside out, at the temperature of 49°C to 66°C. Never exceed 66°C until the product is thoroughly cured.
- v. If during coating, heating the substrate is not available, then after all coating is complete, from the inside out, heat at the temperature internal temperature of 49°C to 66°C. Never exceed 66°C until the product is thoroughly cured.
- vi. If heating the system is not at all possible, as suggested above, then coat the surface at a maximum of 25 mm per coat so each coat can have the moisture evaporate from the product for curing before the next coat is applied.

NOW READY TO INSULATE!