

## **Air Dry Wet Paint Process for Carbon Steel**

This document provides a description of Tramont Manufacturing's procedures for surface cleaning, surface preparation and application of wet process paint to day tanks, sub base tanks, enclosures and other products constructed of hot rolled carbon steel. Tramont's wet paint coating process provides a uniform, durable, high quality finish with superior film integrity.

### **SURFACE PREPARATION**

All steel surfaces must be clean and free of oil, grease and debris before the application of primer or paint.

#### **Cleaning**

Interior spaces are vacuumed to remove debris. Any visible debris is manually removed from exterior surfaces to be painted.

#### **Iron phosphate wash**

All surfaces to be painted are pressure washed with an iron phosphate solution. This scours the metal on a microscopic level, increasing adhesion of paint to the steel substrate. The iron phosphate coating also bonds to the surface to help prevent oxidation of the metal. Following pretreatment with the iron phosphate solution, all surfaces to be painted are thoroughly rinsed with pressurized water and then dried by the application of compressed air.

### **PRIMER AND PAINT APPLICATION**

Primer and paint are applied in accordance with ASTM 823 Practice D "Hand-Held Spray Gun Application." All surfaces are inspected prior to priming and painting and any visible surface contaminants are manually removed.

#### **Application of polyurethane primer**

A polyurethane primer coat is applied with a spray gun. The primer bonds to the surface, inhibiting corrosion of the metal and providing an anchor surface for the finish coat.

#### **Application of polyurethane paint**

A finish coat of polyurethane based wet process paint is applied with a spray gun. Paint is allowed to cure for approximately 24 hours before shipment.

### **PAINT SPECIFICATIONS**

Dry coatings emit little or no volatile emissions and are fully regulatory compliant. The paint has high UV resistance, which enhances color retention in outdoor applications.

#### **Performance**

Finish coat paint utilized by Tramont as described above meets at a minimum the following requirements:

Direct impact: ASTM D 2794 160in./lb. (9.0m/kg)  
Reverse impact: ASTM D 2794 160 in./lb. (9.0 m/kg)  
Pencil hardness (scratch/gouge): 2H  
Flexibility (Mandrel test): ASTM D 4195 1/8 in. (3m mm)  
Minimum adhesion: ASTM D 3359 5A (100% crosshatch)  
Salt spray: ASTM B 117 = 500 hrs. Direct to metal; = 1500 hrs. over primer  
Humidity: ASTM D2244 = 1500 hrs.+