# Heavy Mil Thermally Fused Polymer over Galvanized Steel Chain Link Fence Posts, Rails and Fence Fittings

#### 1. PRODUCT NAME

Heavy Mil Thermally Fused Polymer over Galvanized Steel Chain Link Fence Posts, Rails, and Fence Fittings.

## 2. MANUFACTURER Merchants Metals Manufacturing Locations:

#### Harrison, AR 72601

300 N. Industrial Park Road Phone: (877) 258-9576 Fax: (870) 741-6163

## 3. PRODUCT DESCRIPTION Basic Use:

Framework is a high strength, galvanized steel fence posts and rails with a polymer color coating. It is approved by the U.S. Federal Government for road, airport, commercial, industrial and institutional applications.

#### Composition and Materials:

Framework receives its armor-like heavy mil (10 mils minimum) thermoplastic vinyl finish using a multistep coating process resulting in a durable weather resistant coating which protects products from cracking, chipping or peeling.

#### Cleaning and Surface Preparation:

Application of the heavy mil coating begins with a proprietary cleaning process in which each individual piece of pipe/ tube travels through a gas fired industrial process "washer" where it is subject to the pressurized cleaning solution delivered in four stages during the cleaning and surface pretreatment cycle.

An Iron Phosphate coating is applied as part of this process which provides both enhanced adhesion of the finish coating as well as additional corrosion protection to the steel surface.

The final step in the surface preparation process after exiting the washer is the total immersion of the pipe/tube in high quality water based epoxy primer.

## **PVC Thermoplastic Coating Application:**

The thermoplastic PVC finish coating is applied using the "Fluidized Bed" powder application technique. The cleaned and primer coated pipe is pre heated in a gas fired industrial oven, above the melting point of the vinyl powder. Upon exiting the oven, the heated pipe is immersed in the fluidized bed of vinyl powder where the stored heat in the pipe "picks up" the appropriate amount of powder

which thermally fuses and adheres to the heated pipe surface. The now molten vinyl coating which has adhered to the heated pipe surface is then immersed in cold water where it hardens to the solid vinyl finish and the pipe is cooled to packaging temperature. Upon final inspection, the coated pipe with its beautiful new color finish is then packaged for shipment and distributed to the local Merchants Metals Service Centers.

#### Standards:

ASTM F1043 Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework Group I-A (Sch 40 1.8oz. only) and Group 1-C Heavy Industrial

ASTM F567 Installation of Chain Link Fence

ASTM F626 Standard Specification for Fence Fittings

ASTM F934 Standard Colors for Polymer-Coated Chain Link Fence Materials Federal specification RR-F-191/3E Fence Posts and Rails, Class 1, Grade A or B; and RR-F-191/4F Chain Link Fence Accessories

American Association of State Highway Transportation Officials (AASHTO) M-181 Chain Link Fence, Grade 2

## 4. TECHNICAL DATA General:

If requested, prior to installation, the manufacturer will supply samples and certification that materials furnished comply with the appropriate specifications.

#### Chain Link Fence Framework:

The base metal of the posts and rail are commercial steel conforming to ASTM F1043 Group I-A (Sch 40 1.8oz. only) and I-C, Heavy Industrial Fence and also conform to Federal specification RR-F-191/3E, Class 1, Grades A and B and AASHTO M181 Grades 1 and 2. The thickness of the PVC coating is 0.010 -0.015 in. (0.25 - 0.38 mm).

### Pipe Coating:

Only Plasticized Polyvinyl Chloride (PVC) with low temperature (-20°C; -4°F) plasticizer and no extenders or other extraneous matter, other than the necessary stabilizers and pigments. The PVC coating resists attack from prolonged exposure to most common mineral acids, sea water, and dilute solutions of salts and alkali.

#### Fittings:

Fittings and other accessories are zinc coated (galvanized) pressed steel, cast steel or malleable iron. The exterior surface of the fittings shall be Polyolefin polymer coated with a minimum 6 mill (0.006-in.) in accordance with ASTM F626.

#### ASTM Color System:

All components conform to the color requirements of ASTM F934. Other colors may be available by special order.

#### Adhesion Test:

Test shall be in accordance with ASTM F-1043 8.1.4.1 specification.

#### 5. INSTALLATION

Install fence in accordance with ASTM Practice 567.

#### 6. AVAILABILITY AND COST

#### Availability:

Heavy Mil Thermally Fused Polymer framework and fittings are available for shipment throughout the United States and worldwide.

#### Cost:

Material costs may vary depending on specific requirements. Costs may be obtained through all Merchants Metals Service Centers

#### 7. WARRANTY

Heavy Mil Thermally Fused Polymer framework and fittings have a 15-year factory warranty against failure due to rust or corrosion.

#### 8. MAINTENANCE

No routine maintenance is required. Heavy Mil Thermally Fused Polymer framework and fittings products should be handled with care. If the finish is damaged, contractor must repair.

#### 9. TECHNICAL SERVICES

Specifications, drawings and other technical services are available through the Merchants Metals Technical Sales Department or your local Merchants Metals Service Center.

Technical Sales Department: E-mail: Tech-Info@merchantsmetals.com Website: www.merchantsmetals.com

