

Coating Specifications

Polyvinylidene Fluoride (PVDF)

General Description

Discover PVDF, an exceptional thermoplastic fluoropolymer renowned for its unparalleled purity, strength, and resistance. Known for its ability to withstand solvents, acids, bases, and heat, PVDF is used across diverse applications that demand utmost integrity. Additionally, PVDF features self-extinguishing properties and minimal smoke emission during fire incidents. PVDF paint systems incorporate advanced ceramic pigments with fluoropolymer resins, providing premium coatings for metal surfaces. These systems come with a standard 40-year limited warranty from the manufacturer, ensuring enduring quality and reliability. Architects and designers worldwide prefer PVDF pre-painted steel for its vivid, striking colours and the inherent advantages of steel: flexibility, durability, and minimal upkeep. Embrace PVDF technology for your next project and elevate your vision with confidence.

Specifications

Property	Coating Test Method	Results
Dry Film Thickness	ASTM D 1400-94 ASTM D 1005-95	0.75-1.85 Mil 0.90-1.15 Mil
Specular Gloss	ASTM D 523-89 (@ 60°)	20-35
Humidity Resistance	ASTM D 2247 (100% relative humidity @ 95°F)	Passes 2000 Hrs
Salt Spray	ASTM B 117 (5% salt spray @ 95°F)	Passes 1000 Hrs with <5% #6 blisters
Acid Pollutant Resistance	ASTM D 1308-87 (20% sulfuric acid 18hrs, 10% muriatic acid 15 minutes)	No effect
Graffiti Resistance	ASTM D 6578 (cleanability of defaced panels)	No effect
Abrasion Resistance	ASTM D 968-93 (to exposure 5/32" of substrate)	100 Liters
Chalk Resistance	ASTM D 4214 (Hunter Units Florida exposure @ 45° S)	Rating not < 8 @ 20 yrs.
Colour Retention	ASTM D 4214 (Hunter Units Florida exposure @ 45° S)	Rating not < 5Δ Hunter Units @ 20 yrs
Adhesion	ASTM D 3359-95a (Reverse impacted 1/16" crosshatched)	No adhesion loss
Pencil Hardness	ASTM D 3363	HB-2H
Reverse Impact	ASTM D 2794-93 (3000 x inches of metal thickness)	No cracking or loss of adhesion
Flexibility T-Bend	ASTM D 4145-83	0T-3T bends, no loss of adhesion
Mandrel	ASTM D 522-93A (180 bend around 1/8" mandrel)	No cracking

Coating Specifications

Silicone Modified Polyester (SMP)

General Description

Our Tex and Gloss colours use a Silicone Modified Polyester paint system. Pre-painted SMP steel offers the most popular colours in the market today, fully supported by competitive industry warranties. You can be confident that the quality and service you receive will be world-class. SMP (Silicone-Modified Polyester) paint systems are developed using a blend of polyester and silicone agents. Silicone improves the gloss retention and weather resistance of the polyester coating, and generally, the higher the silicone content, the better the performance of the paint. SMP pre-painted steel has been used in the construction industry for decades and is preferred by many building owners due to its relative durability and budget-friendly cost compared to more expensive paint systems. These SMP paint systems typically come with a standard 40-year limited warranty, although the length and coverage may vary by paint manufacturer. SMP pre-painted steel is best suited for applications such as residential roofing, agricultural buildings, storage sheds, and other projects where colour selection, coating performance, and durability are crucial.

Specifications

Property	Coating Test Method	Results
Dry Film Thickness	ASTM D 1400-94 , ASTM D 1005-95	0.75-1.85 Mil 0.90-1.15 Mil
Specular Gloss	ASTM D 523-89 (@ 60°)	20-35
Humidity Resistance	ASTM D 2247 (100% relative humidity @ 95°F)	Passes 1000 Hrs
Salt Spray	ASTM B 117 (5% salt spray @ 95°F)	Passes 1000 Hrs with <5% #6 blisters
Acid Pollutant Resistance	ASTM D 1308-87 (20% sulfuric acid 18hrs, 10% muriatic acid 15 minutes)	No effect
Graffiti Resistance	ASTM D 6578 (cleanability of defaced panels)	No effect
Abrasion Resistance	ASTM D 968-93 (to exposure 5/32" of substrate)	100 Liters
Chalk Resistance	ASTM D 4214 (Hunter Units Florida exposure @ 45° S)	Rating not < 8 @ 20 yrs.
Colour Retention	ASTM D 4214 (Hunter Units Florida exposure @ 45° S)	Rating not < 5Δ Hunter Units @ 20 yrs
Adhesion	ASTM D 3359-95a (Reverse impacted 1/16" crosshatched)	No adhesion loss
Pencil Hardness	ASTM D 3363	HB-2H
Reverse Impact	ASTM D 2794-93 (3000 x inches of metal thickness)	No cracking or loss of adhesion
Flexibility T-Bend	ASTM D 4145-83	OT-3T bends, no loss of adhesion

Coating Specifications

Polyester (POLY)

General Description

Polyester paint systems provide a hard, scratch-resistant finish with a variety of gloss options. However, they tend to chalk when exposed to UV light. While these paints can be formulated for good weathering properties, they typically do not match the performance of SMP or PVDF coatings. Manufacturers usually offer a standard limited warranty of 10 to 20 years, depending on the specific paint system. Polyester pre-painted steel is ideal for applications such as those including rainwater goods, agricultural buildings like shade and shelter structures, and other uses where durability and long-lasting performance are needed.

Specifications

Property	Coating Test Method	Results
Dry Film Thickness	ASTM D 1400-94 , ASTM D 1005-95	0.75-1.85 Mil 0.90-1.15 Mil
Specular Gloss	ASTM D 523-89 (@ 60°)	20-35
Humidity Resistance	ASTM D 2247 (100% relative humidity @ 95°F)	Passes 1000 hours
Salt Spray	ASTM B 117 (5% salt spray @ 95°F)	Passes 1000 hours
Acid Pollutant Resistance	ASTM D 1308-87 (20% sulfuric acid 18hrs, 10% muriatic acid 15 minutes)	No effect
Graffiti Resistance	ASTM D 6578 (cleanability of defaced panels)	No effect
Abrasion Resistance	ASTM D 968-93 (to exposure 5/32" of substrate)	15 Litres
Chalk Resistance	ASTM D 4214 (Hunter Units Florida exposure @ 45° S)	Rating not < 8 @ 20 years
Colour Retention	ASTM D 4214 (Hunter Units Florida exposure @ 45° S)	Rating not < 5Δ Hunter Units @ 20 years
Adhesion	ASTM D 3359-95a (Reverse impacted 1/16" crosshatched)	No adhesion loss
Pencil Hardness	ASTM D 3363	H>
Reverse Impact	ASTM D 2794-93 (3000 x inches of metal thickness)	No cracking or loss of adhesion
Flexibility T-Bend	ASTM D 4145-83	2T No pickoff
Mandrel	ASTM D 522-93A (180 bend around 1/8" mandrel)	20 Year limited warranty