

DIAMOND GUARD® D Coil Coating System

Remarkably flexible and durable polyester resin blend coating system

Diamond Guard® D coatings utilize an innovative polyester resin blend system developed for prepainted metal products that require superior flexibility, scratch, mar and stain resistance combined with remarkable adhesion performance.

Breakthrough technology developed by Valspar chemists who were challenged to provide a polyester coating flexible enough to withstand the rigorous forming process, yet tough enough to provide superior hardness.

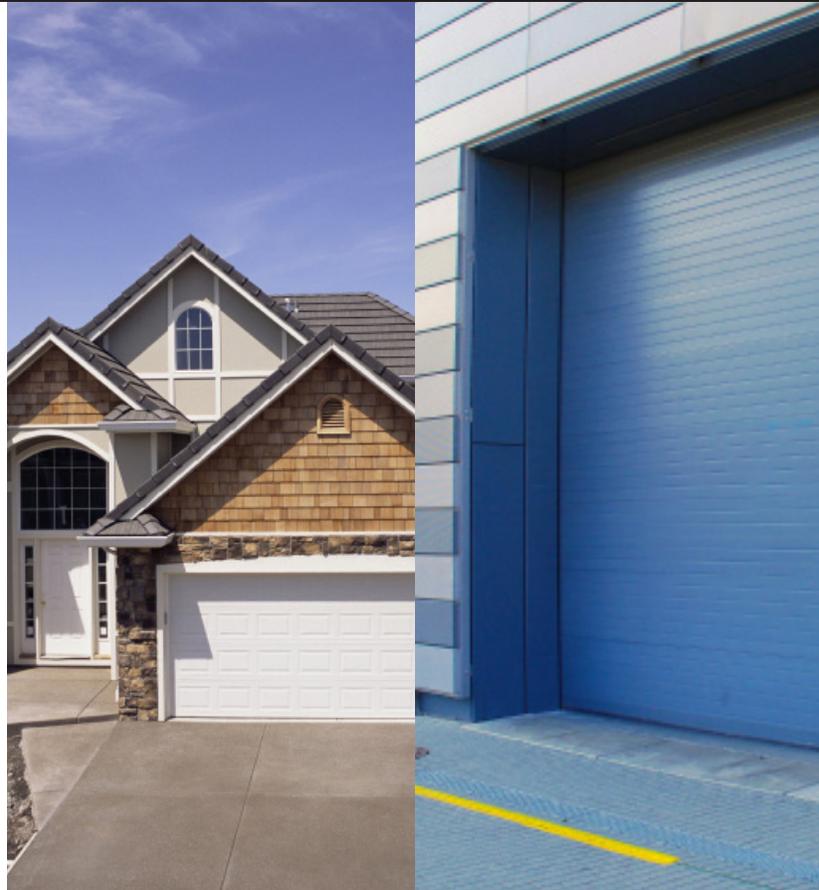
Benefits

Diamond Guard D coatings provide a number of unique benefits over standard polyester systems including:

- Superior scratch and mar resistance
- Exceptional dirt & stain resistance
- Outstanding color consistency
- Excellent overall adhesion
- Great flexibility and formability

Colors

Diamond Guard D coatings are available in a wide spectrum of popular earth tones, bright colors and custom color matching available. All colors are offered in low, medium or high gloss.



Substrates

Diamond Guard D coatings can be applied to a number of pre-painted substrates:

- Hot-Dip Galvanized (HDG)
- Galvalume®
- Aluminum

End Uses:

Diamond Guard D coatings are ideal for the following applications:

- Residential and Industrial garage door systems

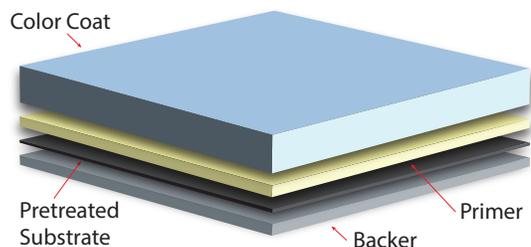
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PERFORMANCE SPECIFICATIONS	PRODUCT PERFORMANCE
Color Palette	Earth tones, pastels, bright colors and custom color matching available ⁶
Specular Gloss at 60° ASTM D 523 ¹	10 to 80; high gloss possible
Surface Appearance	Smooth, textured effect
Pencil Hardness ASTM D 3363	F - 3H
T-Bend ASTM D 4145 ²	0 to 2T, varies with alloy and metal thickness
Cross Hatch Adhesion ASTM D 3359	No loss of adhesion
Humidity Resistance 100% RH 240 Hours ASTM D 2247	Galvalume® or HDG: No field blisters
Salt Spray Resistance 500 Hours ASTM B 117 1,000 Hours ASTM B 117	Galvalume® and HDG: Creep from scribe ≤ 1/8 inch (0mm edge, 0mm scribe) Galvalume® and HDG: Creep from scribe ≤ 1/8 inch (<1mm edge, 0mm scribe)
Water Immersion 168 Hours at 100° F ASTM D 870	No loss of adhesion
Application Method	Reverse roll coat

APPLICATION SPECIFICATIONS	PRODUCT PERFORMANCE
Substrate ¹	Aluminum, HDG or Galvalume®
Pretreatment	Chrome: dried-in-place and conventional methods
Dry Film Thickness ASTM D 4138	Top Coat: 0.7 to 0.8 mils Primer (optional): 0.15 to 0.25 mils Total system: 0.85 to 1.05 mils
Viscosity ASTM D 4212 (No. 4 Zahn cup)	20 to 35 seconds
Solids per Volume ASTM D 2697	45-55% ⁴
Solids per Weight ASTM D 2369	56-66% ⁴
Reducing Thinner	Aromatic blend or glycol ethers
VOC (Theoretical) ASTM D 3960	3.5-4.0 pounds per gallon ⁵
Clean-Up Solvent	Aromatic Ketone blend
Peak Metal Temperature	420° to 450° F
Contains Lubricant	Yes

DIAMOND GUARD® D COATING SYSTEM

Diamond Guard D is a one or two coat polyester resin system with a total Dry Film Thickness (DFT) of 0.85 to 1.05 mils.1s.



Top coat: 0.7 to 0.8 mils Primer (optional): 0.15 to 0.25 mils
Backer: 0.2 to 0.3 mils

(1) All substrates must be properly pretreated. (2) American Society for Testing and Materials. (3) A primer may also be used if desired. (4) Varies by color. (5) Substrate, pretreatment, and primer dependent. (6) Not available in SR formulation.

For details and health, safety and handling information, Material Safety Data Sheets (MSDS) are available at www.valsparcoilextrusion.com.

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