

## ***GENERAL SPECIFICATION SOL-AR POWDER COATINGS***

<b>System</b>	<b>Sol-Ar</b>
<b>Application method</b>	Electrostatic gun (manual/automatic)
<b>Appearance</b>	Smooth finish, good flow
<b>Gloss</b>	30 – 70 units on 60° gloss meter
<b>Specific Gravity</b>	1.2 – 1.8
<b>Coverage</b>	115 – 160 sq ft/lb/1mil (depending on color)
<b>Hardness</b>	Minimum H (ASTM D3363)
<b>Color availability</b>	Wide color pallet range
<b>Impact Resistance</b>	3 mm deformation @ 3 mils pass 60 in/lb direct, 40 indirect (ASTM 2764)
<b>Salt Spray</b>	4,000 hrs – no failure (ASTM B117)
<b>Humidity</b>	4,000 hrs – no blistering on the surface (ASTM D2247)
<b>Weathering</b>	8,000 hrs Arc Zenon (ASTM G155) Color Change: less than $\Delta E$ 5.0 (ASTM 2244) Gloss retention: Greater than 50% retention (ASTM D523)
<b>Curing Instructions:</b>	7 minutes at 400°F (204°C) or 15 minutes at 350°F (177°C) (metal temperature)
<b>Heat Resistance</b>	up to 450°F (232°C)
<b>Features:</b>	<ul style="list-style-type: none"> <li>• Meets AAMA 2605-02</li> <li>• Good mar and abrasion resistance</li> <li>• Excellent chemical resistance</li> <li>• Color and overbake stability</li> <li>• Good physical and mechanical properties</li> <li>• Extended outdoor durability</li> <li>• Anti-graffiti properties</li> </ul>
<b>Recommended Film Thickness</b>	2.5 to 4 mils
<b>Maximum Recommended Storage Temperature</b>	80°F (27°C)
<b>Date:</b>	March 17, 2006

## **STATEMENT OF WARRANTY FOR SOL-AR HIGH PERFORMANCE FLUOROPOLYMER POWDER COATING FOR ARCHITECTURAL APPLICATIONS**

Sol-ar high performance powder is engineered to meet or exceed the performance requirements set forth in the "Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on aluminum Extrusions and Panels" American Architectural Manufacturers Association (AAMA 2605-02).

The document calls for Florida exposure south of latitude 27° North at a 45° angle facing south for a minimum of 10 years with a minimum of 50% gloss retention (ASTM 523) and a maximum  $\Delta E$  color change of 5.0 units (Hunter) ASTM D2244.

Protech powder coating warrants that the Sol-ar series will meet the following criteria:

- The coating shall maintain its film integrity for a period of 10 years.
- The coating shall retain its original color within a maximum of 5 $\Delta$  units (Hunter) ASTM D2244 for a period of 10 years.
- The coating shall have a gloss retention of a minimum of 50% after 10 years (ASTM 523).

Corrosion resistance and adhesion are a direct function of pretreatment and metal preparation conditions.

All surface preparation, pretreatment and application must be performed and carried out by approved applicators in strict conformance with Protech instructions and product data sheet. The recommended procedures set forth in A.A.M.A. 2605.02 and all other written specifications including maintenance and cleaning procedure must be met, including the complete application surfaces using products which conform to ASTM D1730, type B, method 5. (Amorphous Chromium Phosphate Treatment or method 7 (Amorphous Chromate treatment).

Our technical advice whether verbal or in writing is given in good faith. It does not release the purchaser or the applicator to test the products to their suitability for the client application.

This warranty is subject to terms, conditions and limitations – Protech warrants to the customer but not to any successor or assignee of the customer.

## ***CLEANING RECOMMENDATIONS***

The Protech Sol-ar series of architectural powder coating are organic coatings that need to be cleaned and maintained regularly to ensure that the decorative and protective properties of the coating are retained.

This procedure is an integral part of the warranty given for gloss and color retention as well as chalking.

### **The conditions are as follows:**

- Regular washing of the coating with a solution of warm water and mild detergent using a soft cloth or a sponge.
- Temperature of the part to be cleaned shall not exceed 80°F (27°C).
- For removal of oil and grease, isopropyl alcohol can be used.
- The cleaning solution shall not be allowed to be in contact with the powder film for more than 30 minutes.
- After cleaning the surface shall be completely rinsed with clean cold water.
- A record of all cleaning schedule and frequencies shall be kept and documented.