EDLON® SC-3001™ PVDF FLUOROPOLYMER COATING

Proprietary Fluoropolymer Coating for Corrosion Protection

Description
Edlon, Inc. SC-3001™ is a proprietary PVDF*-based composite coating possessing superior resistance to mechanical damage and useful in select corrosive environments, including acids, alcohols, halogens and high purity chemicals.

Applications
For use on most metallic surfaces capable of withstanding the 800°F processing temperatures.

Useful for coating:
- Storage vessels
- Transport tanks
- High purity applications
- Scrubber columns
- Centrifuge baskets
- Complex shapes
- D.I. water systems
- Agitators and baffles

Approved for full vacuum and high-speed agitation.

Preparation of Substrate
- Open access to all surfaces requiring “pin hole free” coating.
- All corners radiused (1/4” convex and 1/2” concave).
- Welds ground smooth and flush, free of porosity.
- Consult Edlon specification No. 91-2003 for specific information on preparing metal surfaces for coating.

Coating Thickness
- Standard thickness is a nominal 0.045” on interior and wetted surfaces, nominal 0.010” on exterior surfaces.
- SC-3001 coating can be applied to the exterior of glass-lined equipment.
- Exterior PVDF coatings are superior to paint in resisting corrosion for harsh environments, spills, etc.
- Coatings thickness up to 0.060” available where abrasion may be a problem.

Testing and Repair
- Coating is repairable in the field; Edlon technicians can make repairs on site or they can provide field repair training.
- Consult Edlon for instructions on spark testing and repair of coated parts.

Benefits
- Superior resistance to mechanical damage
- Excellent performance in bromine service
- Cost effective
- Smooth and hard surface finish
- Good dielectric properties
- Chemical resistant to pH 11

Features
- Field repairable
- Interior and exterior corrosion protection
- Can be applied to existing equipment
- Can be applied to the exterior of glass-lined equipment
- Machinable for sealing surfaces
## Edlon® SC-3001™ PVDF FLUOROPOLYMER COATING

### Physical Properties (Material Only)

<table>
<thead>
<tr>
<th>Property</th>
<th>ASTM Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity</td>
<td></td>
<td>1.78</td>
</tr>
<tr>
<td>Tensile Strength 73°F</td>
<td>D638</td>
<td>4500 PSI</td>
</tr>
<tr>
<td>Ultimate Elongation 73°F</td>
<td>D638</td>
<td>50%</td>
</tr>
<tr>
<td>Hardness–Shore D</td>
<td>D2240</td>
<td>79</td>
</tr>
</tbody>
</table>

### Thermal Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point</td>
<td>352°F</td>
</tr>
<tr>
<td>Maximum Operating Temperature</td>
<td>250°F</td>
</tr>
<tr>
<td>Low Temperature Embrittlement</td>
<td>-40°F</td>
</tr>
<tr>
<td>Coefficient of Linear Thermal Expansion</td>
<td>6 x 10^-5/°F</td>
</tr>
<tr>
<td>Thermal Conductivity</td>
<td>1.25 BTU-in./hr.ft°F</td>
</tr>
</tbody>
</table>

### Coating Applied on Carbon Steel or Stainless Steel

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Service Temperature</td>
<td>0°F to 250°F</td>
</tr>
<tr>
<td>Peel Strength</td>
<td>Exceeds tensile strength of coating</td>
</tr>
<tr>
<td>Flammability</td>
<td>Does not support combustion</td>
</tr>
</tbody>
</table>

### Chemical Resistance

- Resistant to most acids and bases at low temperatures (73°F–150°F)
- Excellent resistance to bromine up to 150°F
- Consult Edlon for recommendations on the suitability of using SC-3001 under specific service conditions

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**PVDF coated transportation tank**

**PVDF coated glove box**