Two-Package Type Epoxy Resin Paint

EPOLITE

EDOGAWA GOSEI CO., LTD.
○ **Product Summary**

Epolite is a two-package type anti-corrosive primer designed to address the two most serious threats to the substrate: corrosion and cutting oil. The cured film displays unparalleled resistance to cutting oil, along with excellent adhesion, anti-corrosive property, and chemical as well as water resistance.

○ **Functionality**

  • Excellent Adhesion
    It provides excellent adhesion to various kinds of metals including aluminum and stainless steel.
  
  • Superior Anti-Corrosive Property
    The product contains no harmful substances such as chromium and uses instead the low toxic anti-corrosive pigments, following our commitment to being “green.”
  
  • Unparalleled Resistance to Cutting Oil
    Its unparalleled chemical resistance is made possible by the three-dimensional crosslink using polyamine and the uniquely modified epoxy resin used in the base.

○ **Composition**

Base: specially modified epoxy resin  
Curing agent: modified polyamine  
anti-corrosive pigments  
organic solvent  
color pigments  
extender pigments  
additives  
organic solvent

○ **Intended Use**

Primer for steel, aluminum, stainless, electrogalvanized steel, and other metals.

○ **Use and Application**

  • Pretreatment
    Degrease and de-rust the substrate prior to application of the paint.
  
  • Agitation
    Provide sufficient agitation before use to disperse the sediment.
  
  • Mixing
Base Resin : Hardener : Thinner = 4 : 1 : 1~1.5 (Ratio by weight).
Viscosity is adjusted to Iwata-cup (NK-2cup) 10±2 seconds (20°C).
Use our Thinner 3200 SW (for spring and autumn), S (summer), or W (winter) depending on the season.

* Mixing ratio of each color is the same.

- Pot Life
  This coating has limited pot life of 5 hours after mixing with curing agent.

- Spray Pressure
  2-3kg/cm² for small objects and 4-5kg/cm² for big objects.

- Setting
  Leave the primer at ambient temperature for a minimum of 30 minutes before top-coating.

- Drying
  Set-to-touch 5 min. at 20°C
  Dry-hard 6-8 hrs. at 20°C
  Forced-drying 30 mins. at 60-120°C

  Leave it to dry for more than 7 days for maximum film properties.

- Drying Conditions After Top-Coating
  Follow the drying conditions for the top coat paint.

- Film Thickness and Application Amount
  Standard film thickness: 30-40μm
  Application amount (after dilution): approximately 170g/m²

○ Film Performance

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Test Condition</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesion</td>
<td>Cross-cut test SPCC-SD steel plate</td>
<td>100/100</td>
</tr>
<tr>
<td></td>
<td>Cross-cut test Aluminum plate 1050P</td>
<td>100/100</td>
</tr>
<tr>
<td></td>
<td>Cross-cut test SUS304 stainless plate</td>
<td>100/100</td>
</tr>
<tr>
<td></td>
<td>Cross-cut test Bonderized steel plate</td>
<td>100/100</td>
</tr>
<tr>
<td>Drawing Test</td>
<td>Drawing test equipment 10mmφ x 500g</td>
<td>O</td>
</tr>
<tr>
<td>Erichsen Test</td>
<td>20mmφ extrusion over 5mm</td>
<td>O</td>
</tr>
<tr>
<td>Chip Resistance</td>
<td>Dupont impact tester 1/4 inch 500g 50cm</td>
<td>O</td>
</tr>
<tr>
<td>Bend Test</td>
<td>4mmφ 1 sec./180°</td>
<td>O</td>
</tr>
<tr>
<td>Acid Resistance</td>
<td>Immersed in 5% HCl solution for 200 hours</td>
<td>OK</td>
</tr>
<tr>
<td>Alkaline Resistance</td>
<td>Immersed in 5% NaOH solution for 200 hours</td>
<td>OK</td>
</tr>
<tr>
<td>Water Resistance</td>
<td>Immersed in tap water at ambient temperature for 6 months</td>
<td>OK</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>Oil Resistance</td>
<td>Immersed in water soluble cutting oil at ambient temperature for 6 months</td>
<td>OK</td>
</tr>
<tr>
<td>Solvent Resistance</td>
<td>Rub 30 times back and forth with a cloth soaked in lacquer thinner</td>
<td>OK</td>
</tr>
<tr>
<td>Salt Spray Test</td>
<td>Salt spray tester 5% NaCl solution (98% humidity, 168 hours)</td>
<td>1mm ≥</td>
</tr>
<tr>
<td>Boiling Water Resistance</td>
<td>Immersed in boiling water at 98°C for 1 hour</td>
<td>OK</td>
</tr>
<tr>
<td>Finish Coat Compatibility</td>
<td>Two-package epoxy resin paint</td>
<td>100/100</td>
</tr>
<tr>
<td></td>
<td>Two-package urethane resin paint</td>
<td>100/100</td>
</tr>
</tbody>
</table>

* In all the tests, Epolite Base Resin 505 Blue was applied to SPCC steel plates and dried at ambient temperature for one week.

○ **Color**

- Base Resin 301 Gray 16kg
- Base Resin 802 Black 16kg
- 549-001 Makino Snow White 16kg
- Epolite Hardener 4kg

*About special color please to inquiry.

○ **Precautions**

- Read and follow SDS before use.
- The two-package type paint has limited pot life after mixing. Use within pot life.
- Mixing with other company’s thinner may cause the pigments to separate from resin and compromise its performance.
- Although the cured film has the excellent chemical resistance, the uncured coating remains very active on the surface. Use caution to avoid discoloration upon exposure to acid or alkaline component (pretreatment solution for metal plates, etc) in dry ambient air.
- The coating may show weaker mutual adhesion depending on the paint used. Make sure to check the composition of the paint prior to application.