Fast Clad® ER
Rapid Cure Epoxy

**Fast Clad ER Epoxy** is an edge-retentive, ultra high-solids epoxy amine coating engineered for immersion service in seawater ballast tanks, fuel/seawater ballast tanks, and petroleum storage tanks. This single coat application saves time, schedule, and money.

### Features
- 24 hour return to service
- 70% + edge protection
- 1 coat protection
- 40°F application temperature
- 50% more flexible than competitive linings
- Can be used in conjunction with cathodic protection
- Available with Opti-Check™ OAP Technology
- Can be applied up to 60 mils in one coat

### Benefits
- Increased asset productivity
- Extended asset protection
- Increased project savings
- Extended painting season
- Increased resistance to cracking and disbondment
- U.S. Navy tested and MIL-PRF 23236 approved for ballast, fuel and CHT tanks.

### Recommended Uses
- Ballast tank interiors, oil storage tank interiors and floating roofs
- Fuel storage tanks and external pipe coating
- Primary or secondary containment
- Meets MIL-PRF-23236 Type VII, Class 5/18, 7/18, 13/18 requirements for single coat seawater, fuel and CHT tanks

U.S. Navy findings after extensively studying the impact of using Fast Clad ER:
- 20% overall cost savings
- 50% schedule savings
- 44% reduction in associated facilities and utilities cost
- 67% labor savings
Product Characteristics

- **Finish:** Gloss
- **Color:** White-Base, Blue OAP
- **Volume Solids:** 98%, ± 2%, mixed
- **Weight Solids:** 98%, ± 2%, mixed
- **VOC (EPA method #24):** <85 g/L; 0.71 lb/gal, mixed
- **Mix Ratio:** 1:1 by volume

<table>
<thead>
<tr>
<th>Recommended Spreading Rate per coat:</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>18.0</td>
<td>22.0</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>18.0</td>
<td>22.0</td>
</tr>
<tr>
<td>~Coverage sq ft/gal (m²/L)</td>
<td>73</td>
<td>89</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>1568</td>
<td>38.4</td>
</tr>
</tbody>
</table>

*NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

**Drying Schedule @ 20.0 mils (200 microns):**

- **To touch:** 6 hours
- **To handle:** 8-12 hours
- **Foot traffic:** 36 days
- **Cure to service:** 36 days
- **Pot Life:** 7 minutes
- **Sweat-in-Time:** None required

- **Shelf Life:** 24 months
- **Flash Point:** 230°F (110°C), PMCC, mixed
- **Reducer:** MEK (R6K10) or Reducer R7K104

Performance Characteristics

- **Surface Preparation:** SSPC-SP10
- **System Tested:** 1 ct. Fast Clad ER Epoxy @ 18.0-22.0 mils (450-550 microns) DFT

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion Resistance</td>
<td>ASTM D4060, CS17</td>
<td>22.4 mg loss</td>
</tr>
<tr>
<td>Adhesion</td>
<td>ASTM D4541</td>
<td>870 psi</td>
</tr>
<tr>
<td>Cathodic Disbondment</td>
<td>ASTM G8</td>
<td>Passes 30 days @ 1.5 volts (Cu/CuSO₄), &lt;10 mm disbondment radius</td>
</tr>
<tr>
<td>Corrosion Weathering</td>
<td>ASTM D5894, 4 cycles, 1134 hours</td>
<td>Rating 10 per ASTM D610 for Rusting (field); Rating 10 per ASTM D714 for Blistering (field)</td>
</tr>
<tr>
<td>Direct Impact Resistance</td>
<td>ASTM D2794</td>
<td>15 in-lb</td>
</tr>
<tr>
<td>Dry Heat Resistance</td>
<td>ASTM D2485</td>
<td>250°F (121°C)</td>
</tr>
<tr>
<td>Flexibility</td>
<td>ASTM D522</td>
<td>7/16” (24-hour cure)</td>
</tr>
<tr>
<td>Moisture Condensation</td>
<td>ASTM D4585, 100°F (38°C), 2000 hours</td>
<td>Rating 10 per ASTM D610 for Rusting (field); Rating 10 per ASTM D714 for Blistering (field)</td>
</tr>
<tr>
<td>Pencil Hardness</td>
<td>ASTM D3363</td>
<td>H</td>
</tr>
</tbody>
</table>

**Immersion (ambient temperature) for the following:**
- Ballast tank mix ......................... Recommended
- Crude oil .................................... Recommended
- Fresh water .................................. Recommended
- Gasoline .................................... Recommended
- Sea water .................................... Recommended
- Reformulated gasoline .................... Recommended
- Kerosene .................................... Recommended

Epoxy coatings may darken or yellow after application and curing.

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