

## SELECTION & SPECIFICATION DATA

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| <b>Generic Type</b>              | Epoxy Polyamine  |
| <b>Description</b>               | A water-resistant epoxy coating polymerized with a polyamine type curing agent. A high performance lining for elevated temperature and pressure immersion services in high purity water, as well as the oil/water separating processes encountered in the petroleum industry.  |
| <b>Features</b>                  | <ul style="list-style-type: none"> <li>• Easy-to-apply high performance thin film lining</li> <li>• Protects I high temperature demineralized water immersion - 212°F (100°C)</li> <li>• Recommended in high pressure three phase service up to 250°F (121°C)</li> <li>• Resists strong oxidizer and acid immersion</li> <li>• Can be air dried or force cured for prompt service</li> </ul> |
| <b>Color</b>                     | Ivory, Light Gray  |
| <b>Dry Film Thickness</b>        | 127 - 152 microns (5 - 6 mils) per coat<br><br>A total film thickness of 10-12 mils/250-300 microns is required for immersion service.   |
| <b>Solids Content</b>            | By Volume 68% +/- 2%   |
| <b>Theoretical Coverage Rate</b> | 26.8 m <sup>2</sup> /l at 25 microns (1092 ft <sup>2</sup> /gal at 1.0 mils)<br>5.4 m <sup>2</sup> /l at 125 microns (218 ft <sup>2</sup> /gal at 5.0 mils)<br>4.5 m <sup>2</sup> /l at 150 microns (182 ft <sup>2</sup> /gal at 6.0 mils)<br>Allow for loss in mixing and application.  |
| <b>VOC Values</b>                | <p><b>As Supplied</b> : 2.38 lbs/gal (285 g/l) ± 2%<br/>Plasite Thinner #19 : 2.82 lbs/gal (338 g/l) ± 2%<br/>Plasite Thinner #71 : 2.79 lbs/gal (334 g/l) ± 2%</p> <p>VOC Content varies between colors. Contact Carboline Technical Service Department for VOC of specific colors.</p>   |
| <b>Dry Temp. Resistance</b>      | <p>Non-Continuous: 177°C (350°F)</p> <p>Continuous immersion temperature and pressure limitations have been established for certain exposures. Please contact Carboline Technical Service for specific recommendations.</p>  |

## SUBSTRATES & SURFACE PREPARATION

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| <b>General</b>         | Remove any oil or grease from surface to be coated in accordance with SSPC-SP1.   |
| <b>Steel</b>           | SSPC-SP10; Surface Profile should be dense angular 2.0-3.0 mils (50-75 μ)   |
| <b>Aluminum</b>        | Surface shall be clean and grease-free with a blast produced anchor pattern or "tooth" as described earlier under STEEL. In addition, the blasted surface shall be given a chemical treatment such as:<br>ALODINE 1200S available from Henkel Surface Tech<br>IRIDITE 14-2 produced by MacDermid Incorporated<br>OAKITE CRYSCOAT 747LTS and OAKITE CRYSCOAT ULTRASEAL produced by Oakite Products |
| <b>Stainless Steel</b> | Profile should be dense angular 2.0-3.0 mils (50-75 μ). Remove all surface contaminants that would interfere with the performance of stainless steel for the intended service such as, but not limited to, imbedded iron or chlorides.  |

**MIXING & THINNING**

|                 |   |
|-----------------|---|
| <b>Mixing</b>   | Thoroughly mix part A and B separately, then add part B slowly to the part A and mix completely. The coating should stand approximately 30 minutes after the curing agent has been thoroughly mixed in.   |
| <b>Thinning</b> | PLASITE Thinner #71 is recommended for normal application temperatures and conditions. PLASITE Thinner #19 is recommended for above normal application temperatures and where tank design requires a slower evaporating thinner to help control overspray. The amounts of thinner required will vary depending on air and surface temperatures and application equipment. Normal application temperatures and conditions will require the addition of approximately 10% by volume with approximately 5% additional thinner added for each 5°F(3°C) of increased temperature. Airless spray equipment and above normal temperatures require additional thinning. It is recommended that the thinner included on each order amount to approximately 20% of the coating order. |
| <b>Ratio</b>    | 4:1 A:B   |
| <b>Pot Life</b> | Approximately 8 to 10 hours at 70°F   |

**APPLICATION EQUIPMENT GUIDELINES**

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

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|---------------------------|---|
| <b>Conventional Spray</b> | Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .070" I.D. fluid tip and appropriate air cap. Adjust air pressure to approximately 50 psi at the gun and provide 10-20 lbs. of pot pressure.   |
| <b>Airless Spray</b>      | Pump Ratio: 30:1 (min.) GPM Output: 2.5 (min.) Material Hose: 3/8" I.D. (min.) Tip Size: .017"-.021" Output PSI: 1500-2300 Filter Size: 60 mesh PTFE packings are recommended<br><br>Apply a "mist" bonding pass. Allow to dry approximately one minute but not long enough to allow film to completely dry. Apply crisscross multi-passes, moving gun at fairly rapid rate, maintaining a wet appearing film. Fast multi-passes may be applied until you have a wet film thickness of approximately 6-8 mil (150-200 μ). Repeat this procedure for the second coat to obtain an 8-12 mil (200-300 μ) DFT. Call Tech. Service for Q&A |
| <b>Brush</b>              | Recommended for small areas only. Use medium bristle brush. Not recommended for tank lining applications except when striping welds. Avoid excessive re-brushing for best results.  |
| <b>Roller</b>             | Not recommended for tank lining applications except when striping welds. Use a short-nap synthetic roller with phenolic core.   |

**CURING SCHEDULE**

| Surface Temp. | Cure for Service |
|---------------|------------------|
| 10°C (50°F)   | 14 Days          |
| 16°C (60°F)   | 10 Days          |
| 21°C (70°F)   | 7 Days           |

With adequate ventilation when applying at temperatures above 70°F (21°C) coating surfaces will normally be tack free in 2-4 hours.

## CURING SCHEDULE

| Surface Temp. | Cure for Most Immersion Services |
|---------------|----------------------------------|
| 54°C (130°F)  | 18 Hours                         |
| 60°C (140°F)  | 10 Hours                         |
| 66°C (150°F)  | 6 Hours                          |
| 71°C (160°F)  | 4 Hours                          |
| 77°C (170°F)  | 4 Hours                          |
| 82°C (180°F)  | 2 Hours                          |
| 88°C (190°F)  | 2 Hours                          |
| 93°C (200°F)  | 2 Hours                          |

The chart above outlines the cure for service (immersion) times when the Force Cure schedule below is followed.

|                   |   |
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| <b>Force Cure</b> | <p><b>NOTE: Temperatures listed for 130°F and above are for force cure.</b></p> <p>Force curing at elevated temperature will increase resistance to certain exposures. When exposure is severe, force curing is recommended to obtain maximum resistance and service life. Allow an air dry time of 16-24 hours @ 50-70°F (10-21°C) before heat curing. When applying at temperatures above 70°F (21°C) allow 2-5 hours air dry time.</p> <p>After air drying, the substrate temperature should be raised by approximately 30°F (17°C) each 30 minutes until the desired force cure temperature is reached.</p> <p>Final cure may be checked by exposing coated surface to MIBK for ten minutes. If no dissolving and only minor softening of film occurs the curing can be considered complete. The film should re-harden after exposure if cured.</p> |
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## CLEANUP & SAFETY

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| <b>Cleanup</b>     | <p>Plasite Thinner #71, Carboline Thinner #2 or acetone</p> <p>In case of spillage, absorb and dispose of in accordance with local applicable regulations.</p>   |
| <b>Safety</b>      | <p>Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions.</p>  |
| <b>Ventilation</b> | <p>When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved supplied air respirator.</p> |

## PACKAGING, HANDLING & STORAGE

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|--------------------------------------|--|
| <b>Shelf Life</b>                    | <p>Part A - 24 months at 70°F (21°C)</p> <p>Part B - 9 months at 70°F (21°C)</p> <p>Part B material in stock should be turned upside down every 3 months</p> |
| <b>Shipping Weight (Approximate)</b> | <p>1 gal unit: 16 lbs (7.3 kg)</p> <p>5 gal unit: 78 lbs (35.5 kg)</p>   |
| <b>Flash Point (Setaflash)</b>       | <p>Part A: 71°F (22°C)</p> <p>Part B: 219°F (104°C)</p>  |
| <b>Storage</b>                       | <p>Store indoors</p>   |

# Plasite 7159

## PRODUCT DATA SHEET

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### WARRANTY

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