# Plasite® 9145 TFE

PRODUCT DATA SHEET

## SELECTION & SPECIFICATION DATA

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| **Generic Type** | High solids epoxy amine |
| **Description** | A high solids epoxy cured with an amine curing agent. Formulated with particular attention to latex resin resistance with special modification to provide superior release properties. Plasite 9145 TFE is used as a second coat over Plasite 9145 when additional release properties are desired or required. |
| **Features** | Excellent resistance to a wide range of latex resin solutions |
| **Color** | White, Light Grey, & Light Blue |
| **Finish** | Semi-Gloss |
| **Primer** | Plasite 9145 |
| **Dry Film Thickness** | 6 - 7 mils (152 - 178 microns) per coat<br>12 - 15 mils (305 - 381 microns) total |
| **Typical Uses** | Plasite 9145 TFE can be used as the second coat over Plasite 9145 for tank lining. |
| **Solids Content** | By Volume 83% +/- 2% |
| **Theoretical Coverage Rate** | 1331 ft²/gal at 1.0 mils (32.7 m²/l at 25 microns)<br>222 ft²/gal at 6.0 mils (5.4 m²/l at 150 microns)<br>89 ft²/gal at 15.0 mils (2.2 m²/l at 375 microns)<br>Allow for loss in mixing and application. |
| **VOC Values** | Plasite Thinner #71 Thinned 10%: 1.37 lbs/gal (164 g/l) ± 2%<br>As Supplied 0.82 lbs/gal (99 g/l) ± 2% |

## SUBSTRATES & SURFACE PREPARATION

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| **General** | Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating. |
| **Steel** | Immersion: SSPC-SP10<br>Non-Immersion: SSPC-SP6<br>Surface Profile: 2.0-3.0 mils (50-75 micron) |
| **Aluminum** | 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: Alodine 1200S available from Henkel Surface Tech, Iridite 14-2 produced by MacDermid Incorporated, Oakite Cryscoat 747 LTS and Oakite Cryscoat Ultraseal produced by Oakite Products. |
| **Concrete or CMU** | Concrete shall be designed, placed, cured, and prepared per NACE No. 6/SSPC-SP 13, latest edition. Abrade to remove all laitance, loose concrete, etc. and to create surface profile in accordance with the appropriate ICRI CSP 5-7. |

## PERFORMANCE DATA

| Test Method | System | Results |
|---|---|---|
| Abrasion Resistance (ASTM D4060, Taber CS-17 Wheel, 1000 gram weight, 1000 cycles)* | Plasite 9145TFE (Two Coats) | 19 milligrams average loss |
| Surface Hardness (ASTM Method D4366-84) Konig Pendulum (Glass Standard = 250 seconds)* | Plasite 9145TFE (Two Coats) | 136 seconds |
| Thermal Shock | Plasite 9145TFE (Two Coats) | Unaffected 5 cycles, minus 70 °F to plus 212 °F (-57 °C to 100 °C) |

***Note:** Above tests were conducted on film cured at 200 °F (93 °C).

## MIXING & THINNING

**Mixing**

The curing agent is in a separate container and measured for the resin unit supplied. Thoroughly mix the pigments. After the pigment and liquid are thoroughly mixed, add the measured liquid curing agent slowly and mix completely with the resin.

**Thinning**

Plasite Thinner 71 is recommended.
The amounts required will vary depending on air and surface temperatures and application equipment. Normal application temperatures and conditions will require the addition of approximately 5-10% thinner by volume with approximately 5% additional thinner added for each 5 °F (3 °C) of increased temperature.
It is recommended that the amount of thinner included on each order amount to approximately 20% of the coating order.

**Pot Life**

1 hour at 70 °F (21 °C)

## 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.

**Spray Application (General)**

All spray equipment should be thoroughly cleaned and the hose, in particular, should be free of old paint film and other contaminants.
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 film thickness of approximately 6-7 mil/150-175 microns (approximately 7-9 wet mil [175-225 microns]). Repeat this procedure for the second coat to obtain a 12-15 mil (300-350 microns) DFT.
Remove all overspray by dry brushing or scraping if required.
Equipment must be thoroughly cleaned immediately after use with Plasite thinner to prevent the setting of the coating.

**Note:** Prior to spray application, stripe brush all welds, attachments and surface irregularities using Plasite 9145 / Plasite 9145 TFE thinned a minimum of 50% by volume with Plasite Thinner 71.

**Conventional Spray**

Use standard production-type spray guns.
Air supply shall be uncontaminated. Adjust air pressure to approximately 50 lbs. at the gun and provide 5-10 lbs. of pot pressure. Adjust spray gun first by opening liquid valve and then adjusting air valve to give an 8-12 inch wide spray pattern with best possible atomization.

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| **Airless Spray** | When airless spray equipment is used, the recommended liquid pressure is 1500-1800 psi (1.03-1.24 MPa) with tip size from 0.017-0.021 inches. Thinning requirements are more than for conventional spray. |

## APPLICATION CONDITIONS

| Condition | Material | Surface | Ambient | Humidity |
|---|---|---|---|---|
| Minimum | 50°F (10°C) | 50°F (10°C) | 50°F (10°C) | 0% |
| Minimum | 90°F (32°C) | 125°F (52°C) | 110°F (43°C) | 80% |

Substrate temperature should be 5 °F (3 °C) above the dew point.
Application and curing times are dependent upon ambient conditions. Consult Carboline's Technical Service Department if conditions are not within recommended guidelines.

## CURING SCHEDULE

| Surface Temp. | Dry to Recoat Minimum | Dry to Recoat Maximum | Tack Free | Cure for Service |
|---|---|---|---|---|
| 70°F (21°C) | 10 Hours | 12 Hours | 12 Hours | 7 Days |
| 90°F (32°C) | NR | NR | NR | 5 Days |

Surface will normally be tack-free in 10-12 hours at 70 °F (21 °C).
Overcoat time will vary both with temperature and ventilation and will require from 10-12 hours at 70 °F (21 °C) for enclosed spaces.
Within 24 hours after coating is applied, a minimum substrate temperature of 70 °F (21 °C) is required for proper polymerization.

| Surface Temp. | Final Cure Immersion |
|---|---|
| 150°F (66°C) | 12 Hours |
| 175°F (79°C) | 6 Hours |
| 200°F (93°C) | 4 Hours |

Listed above are a few curing schedules that may be used for time and work planning. Prior to raising the metal to the force curing temperature, it is necessary that an air dry time of 2-5 hours at temperatures from 70-100 °F (21-37 °C) be allowed. After the air dry period has elapsed, the temperature should be raised by approximately 30 °F (18 °C) each 30 minutes until the desired force curing temperatures are reached.
**Note:** The 200 °F (93 °C) cure will result in maximum hardness and release properties.
Final cure may be checked by exposing coated surface to MIBK for 10 minutes. If no dissolving and only minor softening of film occurs, the curing can be considered complete. The film should reharden after exposure if cured.
**INSPECTION**
Degree of surface preparation shall conform to appropriate specification as outlined in SURFACE PREPARATION section. Film thickness of each coat and total dry film thickness of coating system shall be determined with a nondestructive magnetic gauge, properly calibrated.
Refer to Plasite Bulletin PA-3, Section 3, for inspection requirements.

## CLEANUP & SAFETY

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| **Cleanup** | Use Thinner 2, Thinner 71, or Acetone.<br>In case of spillage, absorb and dispose of in accordance with local applicable regulations. |

## CLEANUP & SAFETY

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| **Safety** | Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use. |
| **Ventilation** | 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. |

## PACKAGING, HANDLING & STORAGE

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| **Packaging** | **1 Gallon Kit**<br>1 - 1 gallon can Part A<br>1 - 1 gallon can Part B<br>**5 Gallon Kit**<br>1 - 5 gallon bucket Part A<br>1 - 3 gallon bucket Part B |
| **Shelf Life** | 24 months at 70 °F (21 °C) |
| **Storage Temperature & Humidity** | Curing Agent: Keep containers tightly closed in a dry, cool and well-ventilated place |
| **Shipping Weight (Approximate)** | 11.5 lbs/gallon. |
| **Flash Point (Setaflash)** | Part A: 24 °F (-4.5 °C)<br>Part B: 219 °F (104 °C) |

## WARRANTY

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