

## SELECTION & SPECIFICATION DATA

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| <b>Generic Type</b>              | Epoxy Polyamide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>               | PLASITE 729TFE is a two-component high build coating based on epoxy resins and a polyamide curing agent. Formulated to provide the end user with a coating that has excellent adhesion and superior flexibility while conforming to current VOC regulations. PLASITE 729TFE is specially formulated with fluorocarbon pigmentation to provide excellent release and mass flow properties while maintaining temperature and chemical resistance properties of PLASITE 729. PLASITE 729TFE meets FDA requirements for 21 CFR, 175.300. Plasite 729TFE is designed as an internal lining for hoppers, silos or covered hopper cars storing or transporting bulk chemicals and dry food products. FOR INDUSTRIAL USE ONLY. |
| <b>Color</b>                     | White, Light Gray, & Light Blue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Primer</b>                    | Use PLASITE 729 as the prime coat for PLASITE 729TFE when two coats are required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Dry Film Thickness</b>        | 3 - 6 mils (76 - 152 microns) per coat<br>A 3 to 6 mil film is produced in one multi-pass spray coat.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Solids Content</b>            | By Volume 78% +/- 2%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Theoretical Coverage Rate</b> | 1245 ft <sup>2</sup> /gal at 1.0 mils (30.5 m <sup>2</sup> /l at 25 microns)<br>415 ft <sup>2</sup> /gal at 3.0 mils (10.2 m <sup>2</sup> /l at 75 microns)<br>207 ft <sup>2</sup> /gal at 6.0 mils (5.1 m <sup>2</sup> /l at 150 microns)<br>Allow for loss in mixing and application.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>VOC Values</b>                | <b>As Supplied</b> : 1.50 lbs/gal (179.1 g/l) ± 2%<br><b>As Supplied</b> : 1.99 lbs/gal (237.5 g/l) ± 2%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## SUBSTRATES & SURFACE PREPARATION

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| <b>Steel</b> | <p>All sharp edges shall be ground to produce a radius and all imperfections such as skip welds, delaminations, scabs, slivers and slag shall be corrected prior to abrasive blasting. Skip welds shall be welded solid.</p> <p>The surface shall be blasted in accordance with NACE No. 3 or SSPC-SP6 (commercial blast cleaned surface finish). This is defined as a surface from which all oil, grease, dirt, rust scale and foreign matter have been completely removed except for slight shadows, streaks or discolorations caused by rust stain or mill scale oxide binder. At least two-thirds of the surface area shall be free of all visible residues and the remainder shall be limited to light discoloration, slight staining or light residues mentioned above. If the surface is pitted, slight residues or rust or paint are found in the bottom of pits.</p> <p>An anchor pattern or "tooth" in the metal shall correspond to approximately 20 to 25% of the film thickness of the coating, 2.0-3.5 mil (50-88 micron) blast profile. The grit shall be of proper size to obtain the specified anchor pattern and shall be free of objectionable contaminants.</p> <p>Remove all traces of grit and dust with a vacuum cleaner or by brushing. Care must be taken to avoid contaminating the surface with fingerprints or from detrimental material on the workers' clothes.</p> <p>The surface temperature shall be maintained at a minimum of 5°F above the dew point to prevent oxidation of the surface. The coating shall be applied within the same day that the surface has been prepared.</p> |
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## PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

| Test Method                                                                           | System                  | Results         |
|---------------------------------------------------------------------------------------|-------------------------|-----------------|
| Abrasion Resistance (Taber CS-17 Wheel, 1000 gram weight)                             | Plasite 729 (Two Coats) | 57.5 milligrams |
| Surface Hardness (ASTM Method D4366-84) König Pendulum (Glass Standard = 250 seconds) | Plasite 729 (Two Coats) | 52 seconds      |

**Pigments:** Titanium dioxide, iron oxide black, phthalocyanine blue, fluorocarbon (TFE) and inerts.

**Gloss:** 45 at 60°

## MIXING & THINNING

|                 |                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Mixing</b>   | The curing agent and coating are supplied in separate containers at a 4:1 ratio. For splitting purposes, use 1 part curing agent to 4 parts coating by volume. Thoroughly mix coating, then add curing agent slowly and mix completely with the coating. No sweat-in time is required at 70°F. At 50°F a sweat-in time of 15 minutes is required. |
| <b>Thinning</b> | Plasite Thinner #19 is recommended. Under normal conditions using airless spray, Plasite 729TFE can be applied using 5% to 10% thinner by volume.                                                                                                                                                                                                 |
| <b>Ratio</b>    | 4:1                                                                                                                                                                                                                                                                                                                                               |
| <b>Pot Life</b> | Approximately 2 to 3 hours at 70°F. A decrease in film build properties indicates the end of the useful pot life.                                                                                                                                                                                                                                 |

## 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>Spray Application (General)</b> | <p>PLASITE 729TFE is formulated for standard production spray equipment and spray application is preferred. All spray equipment should be thoroughly cleaned and the hose, in particular, should be free of old paint film and other contaminants.</p> <p>Apply a "mist" bonding pass.</p> <p>Apply crisscross multi-passes, moving gun at fairly rapid rate maintaining a wet appearing film until you have a wet film thickness of approximately 6 to 8 mils (approximately 5 to 7 mils DFT).</p> <p>Following a 16 to 24 hour air dry with ventilation, a second coat (if necessary) may be applied as described above. Remove all overspray by sanding, dry brushing or scraping if required.</p> <p>Equipment must be thoroughly cleaned immediately after use with methyl ethyl ketone.</p> <p>For service requiring a holiday-free film: Check coated surface with a holiday detector such as Tinker &amp; Rasor Low Voltage Holiday Detector or equal.</p> <p><b>Note:</b> Prior to spray application, stripe brush all welds, attachments and surface irregularities using Plasite 729TFE previously thinned a minimum of 50% by volume with Plasite Thinner #19.</p> |
| <b>Conventional Spray</b>          | <p>Use standard production-type spray guns.</p> <p>Air supply shall be uncontaminated. Adjust air pressure to approximately 50 lbs. at the gun and provide 15 to 20 lbs. of pot pressure. Adjust spray gun by first opening liquid valve and then adjusting air valve to give an 8 to 12" wide spray pattern with best possible atomization.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Airless Spray</b>               | <p>When airless spray equipment is used, the recommended liquid pressure is 1500-2200 psi, with tip size from .015 to .021".</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## CURING SCHEDULE

| Surface Temp. | Cure for Service | Dry to Recoat | Tack Free |
|---------------|------------------|---------------|-----------|
| 50°F (10°C)   | 10 Days          | NR            | NR        |
| 70°F (21°C)   | 7 Days           | NR            | NR        |
| 90°F (32°C)   | 5 Days           | NR            | NR        |
| 130°F (54°C)  | 15 Hours         | NR            | NR        |
| 140°F (60°C)  | 9 Hours          | NR            | NR        |
| 150°F (66°C)  | 6 Hours          | NR            | NR        |
| 160°F (71°C)  | 4.5 Hours        | NR            | NR        |
| 170°F (77°C)  | 3.5 Hours        | NR            | NR        |
| 180°F (82°C)  | 2.5 Hours        | NR            | NR        |
| 190°F (88°C)  | 2 Hours          | NR            | NR        |
| 200°F (93°C)  | 1.75 Hours       | NR            | NR        |
| 70°F (21°C)   | NR               | 24 Hours      | 7 Hours   |

Adequate ventilation is essential during application and the curing period. Curing will take place in 5 days at 90°F; 7 days at 70°F; 10 days at 50°F. This coating should not be applied when air temperature or temperature of surface to be coated is below 40°F. Within 24 hours after coating is applied, a minimum substrate temperature of 50°F is required for proper polymerization. The lining should be odor-free prior to being placed in service. Odor-freeness can be more readily accomplished by increasing heating or venting time.

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 1.5 to 3 hours at temperatures from 50°F to 100°F be allowed. After the air dry period has elapsed, the temperature should be raised approximately 30°F each 30 minutes until the desired force curing temperatures are reached.

Final cure may be checked by rubbing surface with MIBK saturated rag. If the coating softens only slightly after this exposure and no dissolving or sever dulling is observed, the curing can be considered complete for all practical purposes.

**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 for inspection requirements.

## CLEANUP & SAFETY

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Cleanup</b>     | Use Thinner #2 or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Safety</b>      | Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.                                                                                                                                                                                                                  |
| <b>Ventilation</b> | 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

|                                      |                                                                                        |
|--------------------------------------|----------------------------------------------------------------------------------------|
| <b>Shelf Life</b>                    | 12 months at 70°F. Material in stock should be turned upside down every 3 to 6 months. |
| <b>Shipping Weight (Approximate)</b> | Approx. 12 lbs/gallon                                                                  |

## **WARRANTY**

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. Carboline warrants our products to be free of manufacturing defects in accord with applicable Carboline quality control procedures. THIS WARRANTY IS NOT VALID WHEN THE PRODUCT IS NOT: (1) APPLIED IN ACCORDANCE WITH CARBOLINE'S SPECIFICATIONS, AND/OR (2) PROPERLY STORED, CURED, AND USED UNDER NORMAL OPERATING CONDITIONS. Carboline assumes no responsibility for coverage, performance, injuries, or damages resulting from use of the product. If this product is found not to perform as specified upon inspection by a Carboline representative during the warranty period, Carboline's sole obligation, if any, is to replace the Carboline product(s) proven to be defective or refund the purchase price thereof, at Carboline's sole option. Carboline shall not be liable for any other losses or damages. This warranty excludes (1) labor and costs of labor for the application or removal of any product, and (2) any incidental or consequential damages, whether based on breach of express or implied warranty, negligence, strict liability or any other legal theory. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated. The whole text of this Product Data Sheet, as well as the documents derived from it, have been written in English, and for legal purposes the English version shall prevail.