Plasite® 729 TFE

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Epoxy Polyamide
Description	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 INDUSTRAIL USE ONLY.
Color	White, Light Gray, & Light Blue
Primer	Use PLASITE 729 as the prime coat for PLASITE 729TFE when two coats are required.
Dry Film Thickness	3 - 6 mils (76 - 152 microns) per coat A 3 to 6 mil film is produces in one multi-pass spray coat.
Solids Content	By Volume 78% +/- 2%
Theoretical Coverage Rate	1245 ft²/gal at 1.0 mils (30.5 m²/l at 25 microns) 415 ft²/gal at 3.0 mils (10.2 m²/l at 75 microns) 207 ft²/gal at 6.0 mils (5.1 m²/l at 150 microns) Allow for loss in mixing and application.
VOC Values	**As Supplied** : 1.50 lbs/gal (179.1 g/l) ± 2% **As Supplied** : 1.99 lbs/gal (237.5 g/l) ± 2%

SUBSTRATES & SURFACE PREPARATION

Steel	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. 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. 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. 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. 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.

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) Konig 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

Mixing	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.
Thinning	Plasite Thinner #19 is recommended. Under normal conditions using airless spray, Plasite 729TFE can be applied using 5% to 10% thinner by volume.
Ratio	4:1
Pot Life	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.

Spray Application (General)	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 Apply a “mist” bonding pass. 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). 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. Equipment must be thoroughly cleaned immediately after use with methyl ethyl ketone. For service requiring a holiday-free film: Check coated surface with a holiday detector such as Tinker & Rasor Low Voltage Holiday Detector or equal. **Note:** 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.
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 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.
Airless Spray	When airless spray equipment is used, the recommended liquid pressure is 1500-2200 psi, with tip size from .015 to .021”.

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

Cleanup	Use Thinner #2 or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
Safety	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.
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

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

WARRANTY

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