product data

carboline®

PLASITE® 729 SD

Formerly Plasguard 729 SD
Formerly Plasite 728 SD

TYPE
PLASITE 729 SD is a two-component high epoxypolyamide coating system, formulated with a combination of special conductive pigments. The Plasite 729 SD provides the end user with a flexible, chemical resistant hopper car lining system, having a degree of electrical conductivity. Plasite 729 SD meets the requirements of the Food and Drug Administration, 21 CFR, 175.300.

INTENDED USE
Plasite 729 SD is designed as a chemical resistant internal lining for hoppers or hopper cars storing or transporting dry commodities which may have the tendency to build up a static charge. FOR INDUSTRAIL USE ONLY!

TEMPERATURE RESISTANCE
Dry film basis is 200°F continuous.

COLORS
Medium Gray, Slate Blue

FILM THICKNESS PER COAT
A 5 to 6 mil film is produced in one multi-pass spray coat.

Note: Exceeding a 14 mil DFT may result in the loss of a portion or all of the electrical conductivity of properties of this coating.

COVERAGE
1155 mil ft^2/gallon (theoretical). For estimating purposes, 154 ft^2/gallon will produce a 6 mil film (20% loss included). The recommended coating dry film thickness for dry bulk service will vary between 5 mils (minimum) to 12 mils depending upon severity of service.

VOC CONTENT

	Coating as Supplied (Determined Theoretically)		Thinned 10% by Volume with PLASITE Thinner #19 (Determined Theoretically)	
Product	**Lbs./Gal.**	**g/L**	**Lbs./Gal.**	**g/L**
Med. Gray	1.51 ± 2%	117 ± 2%	1.99 ± 2%	181 **± 2%**

DRYING TIME
Surface will normally be tack free in 2 to 3 hours at 70°F. A second coat can be applied after a 16 to 24 hours air dry with ventilation at 70°F. Curing time is 5 days at 90°F; 7 days at 70°F; 10 days at 50°F. Refer to CURING section for more detailed information.

THINNERS
Plasite Thinner 19 is recommended.

PRIMERS
PLASITE 729 is considered self-priming for those applications in which it is installed.
Note: Use of PLASITE 729 as the prime coat for PLASITE 729TFE when two coats are required.

CURING
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.

PHYSICAL SPECIFICATIONS

Pigments:……..Titanium dioxide, iron oxide black, phthalocyanine blue and special conductive inerts.

Solids:……..…87% ± 2% by weight; 77% ± 2% by volume

Pot Life:……Approximately 2 to 3 hours at 70°F. A decrease in film build properties indicates the end of the useful pot life.

Shelf Life:……12 months at 70°F. Material in stock should be turned upside down every 3 to 6 months.

Shipping Weight:……Approx. 14 lbs/gallon

Electrical Resistance:……<25,000 ohms point-to-ground. It is understood user must determine suitability for his specific use.

Gloss:……..……..20 at 60°

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 below 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 ½ 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.

Metal Temperature	Curing Time	Metal Temperature	Curing Time
130°F	15 hours	170°F	3.5 hours
140°F	9 hours	180°F	2.5 hours
150°F	6 hours	190°F	2 hours
160°F	4.5 hours	200°F	1.75 hours

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. 2or SSPC-SP10 (near white 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. 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° 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.

APPLICATION

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.

Spray

PLASITE 729 SD is formulated for standard production spray equipment and spray application is preferred. Under normal conditions using airless spray, Plasite 729 SD can be applied using 5 to 10% thinner by volume.

All spray equipment should be thoroughly cleaned and the hose, in particular, should be free of old paint film and other contaminants.

Use standard production-type spray guns:

GUN	FLUID	AIR
DeVilbiss JGA-510	E	797
Binks #2001	66-SS	63-PB
Graco P-800	04	02

When airless spray equipment is used, the recommended liquid pressure is 1500-2200 psi, with tip size from .015 to .021".

Stripe brush all welds, attachments and surface irregularities using Plasite 729 SD previously thinned approximately one part Plasite Thinner #19 to two parts coating by volume.

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.

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). While Plasite 729 SD can easily be applied to the 5 to 7 mil DFT in one multi-pass spray caot, field application of hopper car linings typically are applied in tow multi-pass caots to the 5 to 7 mil 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 729 SD previously thinned a minimum of 50% by volume with Plasite Thinner #19.

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.

SAFETY

READ THIS NOTICE

SAFETY AND MISCELLANEOUS EQUIPMENT

For tank lining work or enclosed spaces, it is recommended that the operator provide himself with clean coveralls and rubber soled shoes and observe good personal hygiene. Certain personnel may be sensitive to various types of resins which may cause dermatitis.

THE SOLVENT IN THIS COATING IS FLAMMABLE AND CARE AS DEMANDED BY GOOD PRACTICE, OSHA, STATE AND LOCAL SAFETY CODES, ETC. MUST BE FOLLOWED CLOSELY. Keep away from heat, sparks and open flame and use necessary safety equipment, such as, air mask, explosion-proof electrical equipment, non-sparking tools and ladders, etc. Avoid contact with skin and breathing of vapor or spray mist. When working in tanks, rooms and other enclosed spaces, adequate ventilation must be provided. Refer to PLASITE Bulletin PA-3. Keep out of the reach of children.

CAUTION - Read and follow all caution statements on this product data sheet, material safety data sheet and container label for this product.

This data sheet provides standard information on the coating and application procedure. Since varying conditions may not be covered, consult with your local sales representative or Carboline Technical Service Department for further information.

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