

PRODUCT DESCRIPTION

PLASITE 7122 is a cross-linked epoxy phenolic cured with an alkaline curing agent formulated with a wide range of chemical resistance. PLASITE 7122 systems are formulated to meet specific service requirements while retaining temperature, chemical and other physical properties of PLASITE 7122.

USES/APPLICATIONS

- PLASITE 7122 - As a tank lining and for industrial maintenance.
- PLASITE 7122HAR - As a tank lining and for industrial maintenance where additional abrasion resistance is required.
- PLASITE 7122TFE - As a tank lining and for industrial maintenance where release properties are required to reduce or avoid product sticking, hang-up and bridging problems.

APPROVALS/CERTIFICATIONS

All three PLASITE 7122 products meet FDA requirements for 21 CFR 175.300.

TEMPERATURE RESISTANCE

Dry film basis is 400°F/204°C for short periods. Continuous immersion temperatures depend on particular reagent.

COLORS

PLASITE 7122 is offered in green, light gray, medium gray, white, black, tile red and light blue.

PLASITE 7122HAR is offered in green, light gray, medium gray, white, tile red and light blue.

PLASITE 7122TFE is offered in light gray, medium gray, off white, and light blue.

PACKAGING

PLASITE 7122 is available in one and five gallon kits that include the following:

One gallon of 7122 kit includes:	One gallon kits of 7122HAR include:
1 1 gallon can of Part A	1 1 gallon can of Part A
1 1 half-pint bottle of Part B catalyst	1 1 quart can of Part B
	1 Half Part Bottle Part C Catalyst

Five gallon of 7122 kit includes:	Five gallon kits of 7122HAR include:
1 5 gallon bucket of Part A	1 5 gallon bucket of Part A
1 1 pint bottle of Part B catalyst	1 2 gallon bucket of Part B
	1 1 pint bottle of Part C catalyst

FILM THICKNESS PER COAT

PLASITE 7122, 7122HAR and 7122TFE 6-7 mil/150-175 microns in one multi-pass spray coat.

COVERAGE

PLASITE 7122, 7122HAR and 7122TFE - 802 mil sq. ft./gal. (theoretical). For estimating purposes, 100 sq. ft./gal. will produce a 6-7 mil/150-175 microns DFT film (20% loss included).

THINNERS

PLASITE THINNER #71 — A medium fast thinner to be used for internal tank lining.

PLASITE THINNER #19 — A slower thinner to be used in services that do not include immersion where application conditions require a slower solvent evaporation rate.

It will always be necessary to thin the coating. The applicator must make exact thinner adjustments based on his equipment and air and surface temperatures. The following thinning guidelines are approximate:

Normal application temperatures and conditions will require the addition of approximately 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.

CLEANUP THINNER: Thinner #71

STORAGE CONDITIONS

Store all components between 50-75°F/10-24°C in a dry area. Keep out of direct sunlight. Avoid excessive heat and do not freeze. The shelf life is 24 months in the original, unopened container.

PHYSICAL SPECIFICATIONS

Solids: PLASITE 7122.....67% ± 2% by weight; 56% ± by volume
PLASITE 7122HAR.....68% ± 2% by weight; 50% ± by volume
PLASITE 7122TFE.....68% ± 2% by weight; 51% ± by volume

Pot Life (Approx.):

PLASITE 7122, 7122HAR and 7122TFE:24 hours at 70°F/21°C

Shelf Life: PLASITE 7122, 7122HAR and 7122TFE: ..24 months at 70°F/21°C

Note: Material stock should be turned upside down every 3 months.

Spray Viscosity: (Ford Cup #4 depending on color)

PLASITE 7122:.....28 ± 7 seconds

PLASITE 7122HAR:.....20 ± 7 seconds

PLASITE 7122TFE:.....28 ± 7 seconds

Shipping Weight (Approx.):.....13.5 lbs./gal.

***Abrasion Resistance:** Average loss per 1000 cycles, Taber CS-17 Wheel, 1000 gram weight

PLASITE 7122 - 47 milligrams

PLASITE 7122HAR - 8.5 milligrams

PLASITE 7122TFE - 37 milligrams

***Note:** Taber test cannot be conducted due to anti-skid pigmentation.

***Surface Hardness:** ASTM Method D4366-84 König Pendulum (Glass Standard = 250 seconds)

PLASITE 7122 - 136 seconds

PLASITE 7122HAR - 106 seconds

PLASITE 7122TFE - 136 seconds

***Note:** Above tests were conducted on film cured at 150°F/66°.

Thermal Shock: PLASITE 7122, 7122HAR, 7122TFE - Unaffected in 5 cycles, minus 70°F/-56°C to plus 212°F/100°C.

Gloss: PLASITE 7122 - 86 @ 67°

PLASITE 7122HAR and 7122TFE - 47 @ 60°

VOC CONTENT

System	Coating as Supplied (ASTM Method D2369)		Thinned 10% by Volume with PLASITE Thinner #71 (Determined Theoretically)	
	Lt. Gray	Lbs./Gal.	Lbs./Gal.	g/L
7122		3.09 ± 2%	3.43 ± 2%	410 ± 2%
7122 HAR		3.34 ± 2%	3.65 ± 2%	437 ± 2%
7122 TFE		2.94 ± 2%	3.29 ± 2%	394 ± 2%

VOC content varies between colors. Contact Carboline Technical Service Department for VOC of specific colors.

SURFACE PREPARATION**Steel****High Temperature & Immersion Service**

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.

Degrease surface prior to sandblasting. Organic solvents, alkaline solutions, steam, hot water with detergents or other systems that will completely remove dirt, oil, grease, etc. may be used. Used tanks may require additional decontamination.

The surface shall be blasted to an SSPC-SP10 or NACE No. 2 near white metal surface using a Venturi blast nozzle supplied with 80 to 100 psi. An anchor pattern or "tooth" in the metal shall correspond to approximately 20-25% of the total film thickness of the coating.

Contaminated grit shall not be used for the finish work. The blasting media used shall be a natural abrasive, steel grit or slag grit (similar or equal to BLACK BEAUTY®). These abrasives shall be sharp with a hard-cutting surface, properly graded, dry and of best quality. The media shall be of proper size to obtain the specified anchor pattern and shall be free of objectionable contaminants.

May 2007 replaces February 2007

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 Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. 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. Carboline® and Plasite® are registered trademarks of Carboline Company.

PLASITE® 7122

The anchor pattern shall be sharp and no evidence of a polished surface is allowed.

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/3°C 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. Visible oxidation or condensation is not allowed.

Service in Corrosive Atmosphere

Degrease surface as described above in SURFACE PREPARATION-Steel.

SSPC-SP10 or NACE No. 2 (near white metal blast cleaning) - strong fumes and splash spill.

SSPC-SP6 or NACE No. 3 (commercial blast cleaning) - high temperature fumes. SSPC-SP7 or NACE No. 4 (brush-off blast cleaning) - chemical atmosphere and weathering.

SSPC-SP3 (power tool cleaning) - chemical atmosphere and weathering.

When utilized, inhibitive primer should be applied as soon as possible after surface preparation.

Surface preparation for chemical atmosphere and weathering must result in a relatively rough surface. If the steel is new and this type of surface preparation does not leave a reasonably rough surface on the steel, the heavy film system is not recommended.

Depending on service conditions, film thickness requirements may be reduced. Contact Carboline's Technical Service Department for further information.

Concrete

Contact Carboline's Technical Service Department for a recommendation.

Galvanized Steel

Contact Carboline Technical Service.

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 747LTS and OAKITE CRYSCOAT ULTRASEAL

produced by Oakite Products

For immersion, blasting with sharp grit followed by the chemical surface treatment is required.

Note: On metallic surfaces prepared only by chemical etching, the total coating film thickness applied should be restricted to only half the film normally applied to blasted surfaces. This reduced film thickness should be considered during selection of the coating for the service and the type of surface preparation performed.

APPLICATION

Mixing

PLASITE 7122 & 7122TFE

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. The coating should stand approximately 30 minutes after the curing agent has been thoroughly mixed.

PLASITE 7122HAR

Supplied as a three-part system - Part A (liquid coating), Part B (pigment), Part C (small portion of curing agent).

Spray

PLASITE 7122, 7122HAR & 7122TFE

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 P800	04	02

Atomizing air spray is recommended for PLASITE 7122HAR because of the high rate of wear to tips and pump parts on airless equipment.

When airless spray equipment is used the recommended liquid pressure is 1500-1800 psi with tip size from .015-.021 inches. Thinning requirements are more than for conventional spray. Air supply shall be uncontaminated. Adjust air pressure to approximately 50 lbs. at the gun and provide 10-15 lbs. of pot pressure. Adjust

spray gun by first opening liquid valve and then adjusting air valve to give an 8-12 inch wide spray pattern with best possible atomization.

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. Observe the coating surface, and when it appears to be flowing together you will have an average 6-7 mil/150-175 microns wet film. By allowing the solvents to flash-off for a few minutes, several more fast multi-passes may be applied until you have a film thickness of approximately 6-7 mil/150-175 microns (approximately 10-12 wet mil). Repeat above procedure for second coat-obtain a film of 12-15 mil/250-300 microns DFT.

Overcoat time will vary both with temperature and ventilation and will require 8-12 hours at 70°F/21°C for enclosed spaces. Less time is required for exteriors. 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 7122 thinned a minimum of 30% by volume with PLASITE Thinner #71.

Brush

Recommended for small areas and repairs only. Use a high quality brush and apply a very light crisscross brush coat. Allow to dry for approximately 5 minutes. Then apply a heavy coat using a crisscross brush pattern. "Flow" the coating on rather than try to "brush out." Allow to dry tack free. Repeat until sufficient film thickness is obtained. Normally a film thickness of 2.5-3 mil/62-75 microns can be obtained per coat by this method.

Note: PLASITE 7122HAR must be agitated frequently when applied by brush.

CURING

PLASITE 7122, 7122HAR and 7122TFE: Surface will normally be tack-free in 2-3 hours at 70°F/21°C.

Normally polymerization and curing will take place in 5 days at 90°F/32°C or 7 days at 70°F/21°C. PLASITE 7122 systems should not be applied when air temperature or temperature of surface to be coated is below 50°F/10°C. Within 24 hours after coating is applied, a minimum substrate temperature of 70°F/21°C is required for proper polymerization. PLASITE 7122 systems should be force cured for all taste sensitive immersion services.

Force curing at elevated temperature does increase resistance to certain exposures; therefore, when exposure is severe, force curing is recommended to obtain maximum resistance.

Listed below are a few force 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/15°C each 30 minutes until the desired force curing temperatures are reached.

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 properly cured.

METAL TEMPERATURE	CURING TIME	METAL TEMPERATURE	CURING TIME
130°F/54°C	18 Hrs	170°F/77°C	3 ½ Hrs
140°F/60°C	10 Hrs	180°F/82°C	2 ½ Hrs
150°F/66°C	6 Hrs	190°F/88°C	2 Hrs
160°F/70°C	4 ½ Hrs	200°F/93°C	1 ¾ Hrs

INSPECTION

Refer to Plasite Bulletin PA-3, Section 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.

May 2007 replaces February 2007

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 Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. 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. Carboline® and Plasite® are registered trademarks of Carboline Company.