

PRODUCT DESCRIPTION

PLASITE 7122 HS is a cross-linked epoxy phenolic cured with an polyamine curing agent formulated with a wide range of chemical resistance and ease of handling. Contains less than one pound per gallon HAPS solvents.

USES/APPLICATIONS

- PLASITE 7122HS - As a tank lining and for industrial maintenance.
- PLASITE 7122SFE - As a tank lining and for industrial maintenance where release properties are required to reduce or avoid product sticking, hang-up and bridging problems.

May be applied to metal, concrete, and wood. All Plasite 7122HS systems meet the FDA requirements for 21 CFR, 175.300.

TEMPERATURE RESISTANCE

Dry film basis is 350°F for short periods; 300°F continuous. Immersion temperatures depend on particular reagent.

COLORS Light Gray, White, Light Blue, Buff

FILM THICKNESS PER COAT

A 6 to 7 mil film is produced in one multi-pass spray coat.

COVERAGE

882 mil sq. ft./gal. (theoretical). For estimating purposes, 52.3 sq. ft./gal. will produce a 12-15 mil (20% loss included). Two multi-pass spray coats will produce the 12 to 15 mil DFT film recommended for immersion service.

THINNERS

PLASITE #71 THINNER—Recommended for most applications.
PLASITE 201 THINNER—A low HAPS solvent.

Normal application temperatures and conditions will require the addition of approximately 5 to 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.

DRYING TIME

Surface will normally be tack free in 4 to 6 hours at 70°F. For more detailed cure information, refer to curing section.

VOC CONTENT

System	Coating as Supplied		Thinned 10% by Volume with PLASITE Thinner #201 (Determined Theoretically)	
Lt. Gray	Lbs./Gal.	g/L	Lbs./Gal.	g/L
7122 HS	2.4 ± 2%	287 ± 2%	2.8 ± 2%	334 ± 2%
7122 SFE	2.4 ± 2%	287 ± 2%	2.8 ± 2%	334 ± 2%

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-SP5 or NACE No.1 white metal surface for immersion service or 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

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PHYSICAL SPECIFICATIONS

Pigments:..Titanium dioxide, inerts and tinting colors.

Solids: PLASITE 7122 HS.....77% ± 2% by weight
55% ± by volume, **depending on color and pigmentation**

Pot Life (Approx):.....12 hours at 70°F/21°C

Shelf Life:24 months at 70°F/21°C
Note: Material shock should be turned upside down every 3 months.

Shipping Weight (Approx.):

PLASITE 7122 HS.....10.6 lbs./gal.
PLASITE 7122 SFE.....10.2 lbs./gal

Thermal Shock: Unaffected in 5 cycles, minus 70°F/-56°C to plus 200°F/100°C.

Gloss: PLASITE 7122 HS: 80 @ 60°
PLASITE 7122 SFE: 75 @ 60°

Chemical Resistance:

Plasite 7122HS systems have excellent chemical resistance to a wide range of acids, alkalies, and solvents.

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.

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**Immersion Service**

All concrete surfaces require whip blasting for immersion service. Fully cured concrete (minimum 28 day cure) must be blasted to provide a hard, film, clean and neutral surface for coating. All concrete surfaces must be filled and sealed with appropriate Plasite epoxy filler-sealer applied in accordance with the corresponding Plasite product data sheet. All surface imperfections, "bug holes," etc. must be completely repaired before application of the Plasite 7122HS system.

Galvanized Steel

The surface shall be clean, grease-free and properly etched with a standard solution such as Galvaprep 5 (as produced by Henkel Surface Technologies, Madison Heights, MI) or a phosphating solution. After the surface is properly etched, it should be

PLASITE® 7122 HS

thoroughly rinsed with water and thoroughly dried prior to the coating application. No inhibitive primer is required providing the galvanized surface is continuous.

Aluminum 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.

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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.

Wood: Transite and Similar Surfaces

Normally, these materials need no surface treatment provided they are free of grease, oil, and dirt and they are dry. It is generally recommended that the first coat be diluted one part of recommended 201 thinner to one part of material and brush applied.

APPLICATION

Mixing

PLASITE 7122HS & 7122SFE

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.

Spray

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

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 4-5 mil 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.

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Note: Prior to spray application, stripe brush all welds, attachments and surface irregularities using PLASITE 7122HS system thinned a minimum of 50% 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.

CURING

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

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

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.

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's Technical Service Department for a detailed application and inspection procedure.



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