Plasite® 9052

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Polyamine Epoxy
Designation	**This is a product that Carboline is intending to drop from the product line. Please reach out to your Carboline Sales Representative for a product alternative.**
Description	A low VOC water-resistant epoxy coating polymerized with a polyamine curing agent. Primarily as a tank lining for water, including deionized or distilled water at elevated temperatures, as well as use with brines, petroleum processes and products.
Features	• Primary use is as a tank lining for water • Applications include deionized or distilled water at elevated temperatures, as well as use with brines, petroleum processes and products • High solids, Low VOC product • Excellent chemical resistance to crude oil, alkalis, and other various fuels
Color	Charcoal Gray
Dry Film Thickness	5 - 8 mils (127 - 203 microns) per coat Total film thickness recommended: DI water, distilled water, tap water and refined petroleum products - 10 to 14 mils; waste and brine water, crude oil, unrefined petroleum products, petroleum process water solutions and leachate - 12 to 16 mils.
Solid(s) Content	80±2% by volume
Coverage Rate	1,235 mil ft^2/gallon (theoretical). Two multi-pass spray coats will produce the DFT recommended for immersion service.
VOC Values	**As Supplied** : 0.93 lbs/gal (111 g/l) Plasite Thinner #71 : 10% by volume 1.46 lbs/gal (175 g/l)
Dry Temp. Resistance	Non-Continuous: 400°F (204°C) Continuous immersion temperatures depend on particular reagent and temperatures.

SUBSTRATES & SURFACE PREPARATION

General	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
Steel	Immersion: SSPC-SP10 Non-Immersion: SSPC-SP6 Surface Profile: 2.0-3.0 mils (50-75 micron)
Galvanized Steel	SSPC-SP16 or SSPC-SP11

PERFORMANCE DATA

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

Test Method	System	Results
NACE TM0174 (Atlas Cell)	Plasite 9052	DI water (212 °F, 1 Year)
NACE TM0174 (Atlas Cell)	Plasite 9052	Refinery Produced Water (Forced 100 psi pressure, 200 °F, 1 Year)
Thermal Shock	Plasite 9052	Unaffected in 5 cycles, minus 70 °F to plus 212 °F

CHEMICAL RESISTANCE
Fresh Water, Sea Water, Brines, Gases, Dilute Acids, Alkalis, Various Fuels, Crude Oil
NOTE: Although the chemical tests indicated show that Plasite 9052 is unaffected as listed, it is not meant to imply an express guarantee in actual service. The service is dependent upon proper application and actual operating conditions and it is recommended that users confirm adaptability of the product for a specific use by their own tests. Plasite 9052 is not suitable for service in corrosive acids or oxidizing service for continuous immersion.

MIXING & THINNING

Mixing	Mix Part B into Part A using mechanical agitator, making sure all of Part B is completely mixed with Part A. Do not reduce or leave out any of the Part B. Mix well until obtaining a smooth liquid free of any unmixed particles of pigment. Add Part C and mix well. Part A is the liquid resin. Part B is the pigment and Part C is the curing agent. Splitting of kits is not recommended. If necessary, mix Part A and Part B thoroughly and proportion mixture accurately with Part C. Continuous slow agitation during use is recommended. The coating should stand approximately 15 minutes after the curing agent has been thoroughly mixed.
Thinning	Plasite Thinner 71 is recommended under most conditions. The amounts of thinner required will vary depending on air and surface temperatures and application equipment. Normal application temperatures and conditions will require the addition of approximately 10% by volume with approximately 5% additional thinner added for each 5 °F (3 °C) of increased temperature. Airless spray equipment and above normal temperatures require additional thinning. It is recommended that the amount of thinner included on each order amount to approximately 20% of the coating order.
Pot Life	Approximately 2 to 3 hours at 70 °F (21 °C).

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)	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:
Conventional Spray	Air supply shall be uncontaminated. Adjust air pressure to approximately 50 lbs. at the gun and provide 5 to 10 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 to 1800 psi with tip size from 0.017” to 0.021”. Thinning requirements are more than for conventional spray.

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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 3 to 4 mils can be obtained per coat by this method.

APPLICATION PROCEDURES

General	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 maintaining an even continuous wet appearing film. This technique will enable an 8 to 10 mil wet film (approximately 6 to 8 mils DFT) to be applied per multi-pass coat. Repeat this procedure for second coat to obtain a film of 12 to 16 mils. Overcoat time will vary both with temperature and ventilation. Normally 8 to 12 hours at 70 °F (21 °C) is required for enclosed spaces, with additional time needed if coating is being applied at lower temperatures. 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 9052 thinned a minimum 50% by volume with Plasite Thinner 71.

CURING SCHEDULE

Surface Temp.	Cure Time	Tack Free
50°F (10°C)	14 Days	14 Hours
60°F (16°C)	10 Days	8 Hours
70°F (21°C)	7 Days	6 Hours
130°F (54°C)	18 Hours	1 Hour
140°F (60°C)	10 Hours	30 Minutes
150°F (66°C)	6 Hours	15 Minutes
160°F (71°C)	5 Hours	15 Minutes
170°F (77°C)	4 Hours	NR
180°F (82°C)	3 Hours	NR
190°F (88°C)	2.5 Hours	NR
200°F (93°C)	2 Hours	NR

Curing Details	**FORCE CURING** Listed are a few force curing schedules that may be used for time and work planning. Allow 2 to 5 hours air dry time with ventilation prior to raising the metal temperature to the force curing temperature. After the appropriate air dry period, raise metal temperature approximately 30 °F each 30 minutes until the desired force curing metal temperature is 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 will reharden after exposure if cured. **CURING** For immersion service, curing will normally take place in 7 days at 70 °F (21 °C), 10 days at 60 to 69 °F (15.6-20.6 °C) or 14 days at 50 to 59 °F (10-15°C). As ventilation and other factors affect the time/cure of coatings, additional time allowance is recommended at any temperature if cure time is questioned. When exposure is severe and available curing temperatures are below 50 °F (10 °C), force curing is recommended to obtain maximum resistance.

CLEANUP & SAFETY

Cleanup	Use Plasite Thinner 71. 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. Keep container closed when not in use.
Ventilation	When used 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 respirator.
Caution	This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	24 months at 75 °F (24 °C) *When kept at recommended storage conditions and in unopened containers.
Storage Temperature & Humidity	40-110 °F (4-43 °C) 0-90% Relative Humidity
Shipping Weight (Approximate)	1 Gallon Kit - 20 lbs (9 kg) 5 Gallon Kit - 94 lbs (43 kg)
Flash Point (Setaflash)	Part A: 24 °F (-4 °C) Part B: N/A Part C: 219 °F (104 °C)

WARRANTY

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