Plasite® 4007

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Glass Flake Novolac Vinyl Ester
Description	PLASITE 4007 is a high chemical resistant coating. May be used as a light colored topcoat for 4300 or as a multi-coat coating system with or without the option of incorporating fiberglass cloth reinforcement.
Features	Excellent resistance to organic and inorganic acids, salts, gasoline and crude oil
Color	Off-white and Light Gray
Finish	N/A
Dry Film Thickness	12 - 15 mils (0.3 - 0.4 mm) per coat with 2-3 coats total For severe corrosive services use of a 40 mil system applied in three coats is recommended and when used as a lining for tank bottoms (i.e., petroleum tanks, etc.) a 30 mil/750 microns system applied in two coats is recommended. If necessary Plasite 4007 can be used in combination with fiberglass cloth at a total DFT of approximately 40 mils/1000 microns. Use 0.75 oz./ 21 g. fiberglass mat. Where tank bottom is badly pitted or has other deficiencies requiring use of a caulking material, please consult Carboline's Technical Service Department for recommendation.
Solid(s) Content	98± 2% solids by volume (Calculated)
Coverage Rate	54 sq ft/gal at 15 mils DFT
VOC Values	**As Supplied** : 0.15 lbs/gal (18 g/l) Plasite Thinner #20 : 5% by volume 0.30 lbs/gal (36g/l)
Dry Temp. Resistance	Continuous: 250°F (121°C) Non-Continuous: 300°F (149°C) Immersion temperature limits are determined by chemical exposure - please consult with Carboline Technical Service Department.
Topcoats	Not Applicable

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	Cleanliness: Abrasive blast to SSPC-SP10 (minimum) Profile: Minimum 3 mil (75 micron) dense, sharp anchor profile free of peening, as measured by ASTM D 4417. Defects exposed by blasting must be repaired.
Aluminum	Consult Carboline Technical Service.
Concrete or CMU	Concrete shall be designed, placed, cured, and prepared per NACE No. 6/SSPC-SP 13, latest edition. Abrade to remove all laitance, loose concrete, etc. and to create surface profile in accordance with the appropriate ICRI CSP 5-7.

PERFORMANCE DATA

Test Method	System	Results
Abrasion Resistance	Plasite 4007	57.3 milligrams average loss per 1000 cycles, Taber CS-17 Wheel, 1000 gram weight

MIXING & THINNING

Mixing

Plasite 4007 Part A, the promoter (Part B) and catalyst (Part C) are supplied in separate containers and are premeasured for the coating unit supplied. Thoroughly mix the Part A and then add the entire amount of the measured liquid promoter (Part B). When completely mixed (no color streaking or residue of Part B should remain on container sidewalls) add the catalyst (Part C), thoroughly mix and then if needed add thinner.
WARNING! The promoter (Part B) must be separately mixed into the coating (Part A). Any contact of unmixed Part B with Part C may lead to a fire or an explosion!

Thinning

Use Plasite Thinner 20. Thinning of 2% to 5% may be required to adjust coating for higher temperatures and various application conditions. Topcoating of previously applied films will require the addition of 2% to 5% thinner.

Pot Life

1 to 1½ hours in one gallon cans; 1 hour in five gallon cans at 70 °F (21 °C) to 80 °F (27 °C) material temperature. Material temperature in excess of 80 °F (27 °C) will significantly reduce 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.

Conventional Spray

59ASS Fluid Nozzle
251 Air Cap
559SS Needle
Heavy-duty trigger spring recommended
Pot pressure of approximately 50 psi
Atomizing pressure of approximately 60 psi

Note: Application by conventional spray equipment may affect maximum film building capabilities and coverage rates. Applicators may prefer to apply additional coats to achieve the 40 mil nominal DFT.

Airless Spray

GPM Output 3.0 (minimum)
Material hose 3/8” I.D. (minimum)
Fluid nozzle 0.025” or larger
12” minimum spray width
Output PSI 1600-1800
All screens should be removed from pump and gun

Brush

Brush application is not recommended but may be used for repairs or touch-up. Contact Carboline’s Technical Service Department for brush directions.

APPLICATION PROCEDURES

General

The mixed coating shall be applied utilizing a multi- pass spray system. Apply horizontal and vertical passes with 50% overlap. Special precautions are required at overlaps and welds to eliminate excessive film bui ld. Spray gun should be perpendicular to surface at all times, approximately 14” from surface. Refer to THINNERS section. Coating may be ov ercoated after initial “set” which will occur normally in 3 to 6 hour s at 70 °F (21 °C) with proper ventilation. Initial “set” time will decrease as surface temperature increases.

RECOATING TIME May be recoated after initial hardening or set which will normally occur in 3 to 6 hours at 75 °F (24 °C). Following coating must be applied within 30 days. It is recommended each following coat be diluted approximately 2% to 5% with Plasite Thinner 20.

LINING REPAIR Clean damaged area, removing all contaminants and loose coating. Abrasive blast substrate to original specification where coating has been exposed to environment and where oxidation is evident. Feather the original coating not less than 2”/5 cm. from damaged area. If new coating is physically damaged and has not been in service, repair as shown above. For repairing holidays, sand surface and brush apply proper thickness of coating. Apply coating by brush or spray. Do not apply by brush on areas larger than 1 square foot/0.09 sq. m. Note: Contamination of previously exposed coating film may be detrimental to adhesion of the repair and may affect service life expectancy.

WARNING! When physical contact, such as foot traffic, scaffolding, etc., with the previously applied coating is required, a minimum of 10 hours at 70 °F (21 °C) substrate and air temperature with ventilation is normally required before proceeding. Previously applied coats must have reached a “non- tacky” state before being exposed to physical contact. This condition will occur in less time as surface temperature increases. Overcoating shall be per formed as soon as p ossible to p revent contamination.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	70°F (21°C)	60°F (16°C)	60°F (16°C)	0%
Maximum	90°F (32°C)	100°F (38°C)	100°F (38°C)	80%

A minimum surface temperature of 70 °F (21 °C) is required to obtain polymerization of the coating system. Coating can be applied at a surface temperature as low as 60 °F (15.5 °C) but polymerization will not take place. Succeeding coats cannot be applied without damaging the system until the surface temperature rises sufficiently to obtain polymerization. Refer to CURING TIME. When surface temperatures are over 100 °F (38 °C), consult Carboline Technical Service Department for special thinner and thinning instructions.

CURING SCHEDULE

Surface Temp.	Final Cure Time
70°F (21°C)	10 Days
90°F (32°C)	7 Days

Although coating may be applied at substrate temperatures as low as 60°F/15.5°C, the substrate temperature must be raised to at least 70 °F (21 °C) within 12 hours and held until coating surface is tack-free (approximately 10 hours) to avoid possible loss of cure. A minimum of 70 °F (21 °C) surface temperature is required to obtain polymerization of this coating.

CLEANUP & SAFETY

Cleanup

Use Plasite Thinner #71. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

CLEANUP & SAFETY

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, 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	Part A: 60 days at 70 °F (21 °C) Part B: 24 months at 70 °F (21 °C) Part C: 12 months at 70 °F (21 °C) Cooler temperatures will increase shelf life. Storage at higher temperatures is not recommended and will result in substantially shorter shelf life.
Shipping Weight (Approximate)	1 gallon - 13 lbs (6 kg)
Flash Point (Setaflash)	Pt A : 88 °F (31 °C) Pt B : 21 °F (-6 °C) Pt C : 180 °F (82 °C)

WARRANTY

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