

SELECTION & SPECIFICATION DATA

Description	PLASITE 4550 HT is a high solids, reinforced, premium novolac epoxy coating for internal tank lining. It is resistant to a broad range of chemicals such as fuels, salts, alkalis, strong inorganic acids, some solvents, and sour crude oil.
Features	<ul style="list-style-type: none"> • Broad spectrum chemical resistance • Superior adhesion to metal substrates and concrete • High Impact Resistance • Fast cure-to-service; depending upon application can be placed into service overnight • Excellent performance in high temperature cathodic protection • Blush resistant formulation • Cures below freezing temperature • Can be applied as a one-coat system • Complies with the API RP 652 definition of a reinforced liner.
Color	0100 Blue
Primer	Coating is normally applied direct to metal. May be applied over other primers as recommended by Carboline.
Dry Film Thickness	<p>12 - 40 mils (305 - 1016 microns) per coat</p> <p>Depending upon service and existing substrate condition. Typically applied at 20 mils in a single coat application. Application above 40 mils may require multiple passes with a short set time between them.</p>
Typical Uses	<ul style="list-style-type: none"> • Chemical storage tanks • Hot service buried pipe • Plating vats • Scrubber slurry tanks and associated equipment • Oil storage tanks and process equipment • Fuel storage tanks • Ethanol storage tanks
Solids Content	By Volume 98% +/- 2%
Theoretical Coverage Rate	<p>1572 ft²/gal at 1.0 mils (38.6 m²/l at 25 microns)</p> <p>131 ft²/gal at 12.0 mils (3.2 m²/l at 300 microns)</p> <p>39 ft²/gal at 40.0 mils (1.0 m²/l at 1000 microns)</p> <p>Allow for loss in mixing and application.</p>
VOC Values	As Supplied : 17 g/L
Dry Temp. Resistance	<p>Continuous: 400°F (204°C)</p> <p>Non-Continuous: 450°F (232°C)</p> <p>Discoloration and loss of gloss occurs above 200°F (93°C) but does not affect performance</p>

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: Prepare by abrasive blasting to a minimum near White Metal Finish (NACE NO 2, SSPC-SP10) with a minimum 3 mil (75 micron) dense, sharp anchor profile.

SUBSTRATES & SURFACE PREPARATION

Stainless Steel	Prepare by abrasive blasting to SSPC-SP 17 Thorough Abrasive Blast to a minimum of 3 mils (75 microns) dense angular anchor profile.
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 4-7. Do not apply coating unless concrete has cured at least 28 days @ 70°F (21°C) or equivalent. Voids in concrete may require filling and/or surfacing. Consult Carboline Technical Service for recommended primer/sealer.

MIXING & THINNING

Mixing	Plasite 4550 HT is a plural component applied product. Mix each component separately to a smooth, uniform consistency. Any settling in the container must be thoroughly scraped and re-dispersed.
Thinning	Thinning is not recommended for plural component applications.
Ratio	A:B 4:1
Working Time at 75° F (24° C)	20 min.

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.

Application Procedure	<p>Use a fixed ratio (4:1 by volume) plural component spray rig such as Graco King Hydro-Cat or equal with heated hoppers, heated hoses to a mixer manifold through a static mixer to a 50 whip hose followed by a silver gun, Binks 1M or equal, utilizing self-cleaning reverse "a" tips from 0.017" to 0.035". See equipment specifications for more details.</p> <p>Note: The "A" side should be at a minimum of 120 °F (49 °C) and the "B" side at 90-100 °F (32-37 °C). This will ensure proper spraying of Plasite 4550 HT.</p> <p>Take care to prevent mixed material from setting up in the line. For best results keep whip hose as short as possible, purge it immediately if work is interrupted, keep it out of direct sunlight and insulated from hot surfaces.</p>
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APPLICATION PROCEDURES

General	<p><u>Lining Repair:</u> Before any touch up or recoat material can be applied the first coat must be properly prepared for intercoat adhesion. The first coat must be cured firm to touch. Coating on floors must be able to support foot traffic. If the first coat cures more than 30 days, sand or mechanically abrade the surface to create a profile. When the recoat material is applied the surface must be dry and free of all dirt, dust, debris, oil, grease or other contamination.</p>
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APPLICATION PROCEDURES

Airless Spray	<p>Adjust pressure to 50-70 lbs and open the valves at the manifold and purge materials at the spray gun. Attach spray tip and begin to spray. Dependent upon tip size, each pass will be 8-14 mil (200-350 microns) per pass.</p> <p>Immediately before applying spray coat, stripe coat all welds and edges to assure adequate protection of these areas.</p> <p>Apply criss-cross multi-passes, moving gun at a fairly rapid rate and maintaining a wet-appearing film. Use a wet film gauge to monitor film build.</p>
Mixing	<p><u>For touch-up only:</u></p> <p>Plasite 4550 HT is available in small touch-up kits which may be hand mixed. The A component will be stiff if cold and must be at least 70°F along with the B side. Mix 5-10% Thinner 76 into the A side then add pt. B and mix thoroughly. Add just enough thinner to mix well. Do not exceed 10%. Mix full kits only and apply promptly. Jiffy type mixers are recommended for all mixing and stirring. Avoid plunging the mixer up and down in the bucket. This can fold air into the resin which may cause bubbles to form in the coating after it has been applied.</p> <p>Individually stir separately Part A and Part B to a smooth uniform consistency and color. Any sediment in the container must be thoroughly scraped up and redispersed.</p> <p>Usable pot life will be approx. 20 min. at 75°F material temperature.</p>

APPLICATION CONDITIONS

Condition	Surface	Ambient	Humidity
Minimum	35°F (2°C)	20°F (-7°C)	0%
Maximum	125°F (52°C)	110°F (43°C)	85%

Do not apply material when temperature will fall within 5°F (3°C) of the dew point.

Material temperatures: For proper spraying, Part A should be between 110 and 120°F(43°C-49°C) and Part B 90-100°F(32-37°C). Curing times are dependent upon substrate temperatures. Consult Carboline Technical Service for more information.

CURING SCHEDULE

Surface Temp.	Dry to Touch	Dry to Handle or Recoat	Cure for Service	Dry to Recoat Maximum
30°F (-1°C)	16 Hours	36 Hours	7 Days	30 Days
40°F (4°C)	8 Hours	27 Hours	4 Days	30 Days
50°F (10°C)	5 Hours	15 Hours	42 Hours	30 Days
60°F (16°C)	3 Hours	9 Hours	30 Hours	30 Days
75°F (24°C)	2 Hours	4.5 Hours	20 Hours	30 Days
90°F (32°C)	1 Hour	3 Hours	18 Hours	30 Days

Cure times are based on surface temperatures and 50% relative humidity.

CLEANUP & SAFETY

Cleanup	Plasite Thinner 71 or Carboline Thinner 2
Safety	Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions.
Ventilation	Ventilation 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. Use MSHA/NIOSH approved air respirators as needed.

Plasite® 4550 HT

PRODUCT DATA SHEET



CLEANUP & SAFETY

Caution	Fire and explosion hazards: This product contains less than 1% volatile components, however, vapors are heavier than air and can travel long distances, ignite and flash back. Eliminate all ignition sources. 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.
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PACKAGING, HANDLING & STORAGE

Packaging	5 Gallon Kits: Part A: 4 Gallons Part B: 1 Gallon 20 Gallon Kit: Part A: 4 x 4 Gallons Part B: 1 x 4 Gallons 250 Gallon Kit: Part A: 4 x 50 Gallons Part B: 1 x 50 Gallons
Shelf Life	Part A: 12 months Part B: 12 months
Storage Temperature & Humidity	50-85 °F (10-29 °C) For 24-48 hours just prior to use narrow the storage temperature to 70-85 °F (21-29 °C) to facilitate ease of mixing
Storage	Store indoors
Shipping Weight (Approximate)	5 Gallon Kit - 59 lbs (27 kg) 20 Gallon Kit - 238 lbs (108 kg)
Flash Point (Setaflash)	Part A: >200°F (93°C) Part B: >200°F (93°C)

WARRANTY

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, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. 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. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.