

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Inert flake-filled novolac epoxy vinyl-ester
<b>Description</b>	<p>Plasite 4302 HT is an inert flake-filled novolac epoxy vinyl-ester coating and lining System designed for application over steel and concrete. Its resistance to a wide variety of chemicals, including organic and inorganic acids, most alkalis, and many solvents makes it highly suitable for immersion service as internal steel tank linings, as well as for splash, spill, and fume exposures on structural steel.</p> <p>Plasite 4302 HT is a two component system consisting of a Part A resin and a Part B catalyst. It is applied by brush, roller, and spray techniques and is typically applied to a total thickness of 35- to-45 mils (888-1143 microns) in two coats for internal linings and 15 to 40 mils (1016 microns) for splash, spill and vapor zones for structural steel or concrete structures. It can be inert mat reinforced when exposure conditions dictate greater thicknesses.</p>
<b>Color</b>	Grey
<b>Dry Film Thickness</b>	<p>15 - 40 mils (381 - 1016 microns) Concrete Surface: applied in one or two coats            15 - 40 mils (381 - 1016 microns) Structural Steel: applied in one or two coats            35 - 40 mils (889 - 1016 microns) Tank Linings: Applied in two (2) coats*</p> <p>* Except where chemical service requires a thicker reinforced coating system.</p>
<b>Typical Uses</b>	<ul style="list-style-type: none"> <li>• Steel Tank and Vat Linings</li> <li>• Secondary Containment</li> <li>• Structural Steel Coatings</li> <li>• Process Floors</li> <li>• Grating Coatings</li> <li>• Sumps and Trenches</li> <li>• Scrubber Linings</li> <li>• Clarifier Linings</li> </ul>
<b>Coverage Rate</b>	<p>62-67 ft<sup>2</sup>/gal at 20.0 mils (1.52-1.64 m<sup>2</sup>/l at 508 microns)            80-94 ft<sup>2</sup>/gal at 15.0 mils (1.96-2.31 m<sup>2</sup>/l at 381 microns)</p>

## SUBSTRATES & SURFACE PREPARATION

<b>General</b>	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.
<b>Steel</b>	<p>Cleanliness: Abrasive blast to SSPC-SP5            Profile: Minimum 4 mil (100 microns) dense, sharp anchor profile free of peening, as measured by ASTM D4417. Defects exposed by blasting must be repaired.</p>
<b>Concrete</b>	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.
<b>Special Instruction</b>	<ul style="list-style-type: none"> <li>• Mask or remove adjacent surfaces and equipment that are not to be lined. Lining materials are difficult to remove, once applied.</li> <li>• Protect nearby pumps, motors and other equipment from spent abrasive venting from the tank during blasting</li> </ul>

### PERFORMANCE DATA

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

Test Method	System	Results
Bond Strength (ASTM D4541)	Plasite 4302 HT	Concrete: Failure
Bond Strength (ASTM D4541)	Plasite 4302 HT	Steel: 1,800 psi
Flexural Modulus of Elasticity (ASTM D790)	Plasite 4302 HT	Neat: 800,000 psi x 105
Flexural Strength (ASTM D790)	Plasite 4302 HT	Neat: 7,000-8,000 psi
Hardness (ASTM D2240 Shore D)	Plasite 4302 HT	Neat: 86
Heat Distortion Temperature (ASTM D648)	Plasite 4302 HT	300 °F (149 °C)
Tensile Elongation (ASTM D638)	Plasite 4302 HT	Neat: 0.5%
Tensile Strength (ASTM D638)	Plasite 4302 HT	Neat: 5,000-7,000 psi

### MIXING & THINNING

<b>Mixing</b>	<ol style="list-style-type: none"> <li>1. Individually stir each separate Part A and Part B component to a smooth, uniform consistency and color. Any sediment in the container must be thoroughly scraped up and re-dispersed.</li> <li>2. If using a catalyst injection spray rig, skip this step.</li> <li>3. Thinning generally not necessary. If thinning is implemented do not exceed 5% using styrene monomer.</li> <li>4. Do not thin if placing this product in immersion service.</li> </ol> <p>Note: Adding styrene monomer will slow the cure of this product.</p> <p>Otherwise:</p> <p>Pour the entire contents of Part B into the container holding the Part A, and mix thoroughly for 2-minutes. The pot-life of the mixture will be approximately 30-to-40 minutes at 75 °F (24 °C) (significantly less at elevated temperatures). The longer the material is in the bucket after mixing, the shorter its pot-life will be. Use it immediately.</p> <ol style="list-style-type: none"> <li>5. If applying with a catalyst injection spray rig: <ol style="list-style-type: none"> <li>a. Pour the pre-mixed Part A and Part B components into their appropriate hoppers on the rig. Continuous mixing of the A side will be required to assure proper suspension of the inert flake. Apply the Plasite 4302 HT at the specified mil thickness and allow to cure.</li> </ol> </li> </ol>
<b>Pot Life</b>	<p>90-100 minutes at 50 °F (10 °C)            30-40 minutes at 75 °F (24 °C)            15-20 minutes at 90 °F (32 °C)</p>

### 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.

<b>General</b>	<p>Plasite 4302 HT may be applied using a spray rig, brush or roller. Types of equipment include: conventional, airless 30 to 1 Bulldog or plural equipment catalyst injected</p> <p>CONTINUOUS MIXING DURING USE at low speed may be required to assure proper suspension of the inert flake.</p> <p>Applicators may prefer to apply the coating in more than two coats to achieve the 40 mils (1000 microns) nominal DFT.</p> <p>In high production application, the use of airless spray rig, plural component catalyst injected spray may be used. Small quantities may be applied using a 2-gallon bottom-fed pot. (Caution: pot life is short plan work according)</p>
----------------	--

## 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.

<b>Spray Application</b>	<p>Conventional atomizing spray system shall be equal to Binks Model 2001 Gun with 59ASS Fluid Nozzle – 251 Air Cap; 559SS Needle. Heavy-duty trigger spring recommended. Pot Pressure: 50 psi (3.4 bars) approx. Atomizing Pressure: 60 psi (4.1 bars) approx. (Use standard production-type pressure pot with air motor drive agitator.)</p> <p><b>Note:</b> Application by conventional spray equipment may affect maximum film building capabilities and coverage rates.</p>
<b>Airless Spray</b>	<p>Airless spray system requires a large capacity pump with a capacity of 3 g.p.m. (11.1 l.p.m.) similar or equal to: 30:1 Graco (bulldog may be used in certain instances) King air motor Fluid Nozzle: 0.025" (0.064 cm) or larger Spray Width: 12in (30 cm) minimum recommended Liquid Pressure: 1800 to 2200 psi (124-152 bars) approx. Fluid Line: 3/8" (9 mm) diameter recommended All screens should be removed from pump and gun.</p>
<b>Plural Component</b>	<p><b>(Catalyst Injection)</b> Use a Graco 45 to 1 King Air (Extreme) pump (less filters) on a special cart with a Binks Super Slave, 12 gal Stainless Steel hopper, air regulator assembly, up to a 100' resin, catalyst and air hose assembly, swivel, Century Gun with T.C.Seat, needle and tip. The following equipment may be used but it is not currently available: Air assist Binks 37:1 ratio B8-DSQ cart mounted super slave spray unit with air controls, 7-1/2 S.S. hopper with cover and quick disconnect, SQ S.S. line filter, 50' resin, catalyst and air hose assembly, swivel, Century Gun with T.C.Seat, needle and tip.</p> <p><b>When applying Plasite 4302 HT by plural component, do not mix Part B into Part A in its container. Rather the Part B mixes with the Part A externally at the spray gun.</b></p> <p><b>Always use spray equipment in accordance with manufacturer's instructions.</b></p>

## APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	60°F (16°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	120°F (49°C)	120°F (49°C)	80%

## CURING SCHEDULE

Surface Temp.	Minimum Recoat Time	Maximum Recoat Time
50°F (10°C)	12 Hours	7 Days
75°F (24°C)	5 Hours	7 Days
90°F (32°C)	2 Hours	5 Days

Weather conditions, and especially dew point, should be constantly monitored in light of the work being done. Final blast cleaning and application of the lining system must only be performed when it is clear the temperature of the steel substrate will not fall within 5 °F (3 °C) of the dew point. Dehumidification and/or temperature control may be necessary to meet this requirement.

Use a surface thermometer to frequently monitor the temperature of the steel substrate.

# Plasite<sup>®</sup> 4302 HT

## PRODUCT DATA SHEET



### CURING SCHEDULE

Surface Temp.	Final Cure Immersion
75°F (24°C)	48 Hours

Splash and Spills - 24 Hours @ 75 °F (24 °C)

### CLEANUP & SAFETY

<b>Cleanup</b>	Before Polymers coating and lining materials gel, they can be cleaned from hand tools and equipment using acetone. Spray equipment should be cleaned before coating and lining material begins to gel. Follow equipment manufacturer's recommendations for proper cleaning and care instructions. After Carboline Polymers coating and lining materials gel, acetone or MEK will be required for cleaning. Chlorinated solvents may be used if flammable solvents are not allowed.
<b>Safety</b>	Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use.

### PACKAGING, HANDLING & STORAGE

<b>Packaging</b>	<ul style="list-style-type: none"><li>• 1 Gallon</li><li>• 5 Gallon</li></ul> Each unit consists of a pre-measured Part A component and a pre-measured Part B component
<b>Shelf Life</b>	2 months
<b>Storage Temperature &amp; Humidity</b>	Store at 50-75 °F (10-24 °C) Refer to batch number on label for date of manufacture.
<b>Storage</b>	Keep all components tightly sealed in their original containers until ready for use. Keep out of direct sunlight. Keep away from heat and flame.
<b>Shipping Weight (Approximate)</b>	1 Gallon Unit: 10.23 lbs (4.64 kg) 5 Gallon Unit: 51.15 lbs (23.2 kg)

### 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.