

SELECTION & SPECIFICATION DATA

Generic Type	100% Solids novolac epoxy
Description	Plasite 4555 S is a 100% solids, flake-filled, premium novolac epoxy coating designed for internal steel and concrete tanks and pipe lining. It is a two component system consisting of 4-parts by volume of Part A resin and one part by volume of Part B hardener. It is applied by plural component or single component spray equipment, in a one-coat application (25-30 mils) for internal lining applications.
Features	<ul style="list-style-type: none"> • High impact resistance • Superior bond strength to steel and concrete • Resistance to a broad range of chemicals • Can be applied in a one-coat application up to 30 mils/.75 mm • Easily repaired using inter-coat prep procedures
Typical Uses	<ul style="list-style-type: none"> • Food grade lining • Liquid food products such as orange juice, beer, wine, grape juice, tomato products • FDA Compliant 21CFR175.300
Color	U74P (Light gray)
Finish	N/A
Primer	Priming may be required in situations where outgassing could be a problem. Consult Carboline for primer recommendations.
Dry Film Thickness	25 - 30 mils (635 - 762 microns) in a one coat application. Most applications are applied in a single coat at 20-30 mils (500-750 microns). May be applied at heavier thicknesses up to 60 mils (1500 microns) as needed or specified. See Shelf Life for film build limitations.
Solids Content	By Volume 100% +/- 2%
Theoretical Coverage Rate	1604 ft ² /gal at 1.0 mils (39.4 m ² /l at 25 microns) 64 ft ² /gal at 25.0 mils (1.6 m ² /l at 625 microns) 53 ft ² /gal at 30.0 mils (1.3 m ² /l at 750 microns) Allow for loss in mixing and application.
VOC Values	As Supplied : 0.0
Dry Temp. Resistance	Continuous: 250°F (121°C) Non-Continuous: 300°F (149°C)
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.

SUBSTRATES & SURFACE PREPARATION

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 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 | To prepare the material for spraying, mix Part A with a jiffy type mechanical mixer for two minutes, mix Part B until color is well blended, then mix Part A and Part B together for two minutes using the jiffy mixer.

Thinning | Not recommended

Pot Life | 75 °F (24 °C): 45-60 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.

Airless Spray | **Single Component Airless Spray**
All filters should be removed from the pump
Air ratio 45:1
Material hose 3/8" I.D. (minimum) not to exceed 100 In ft
Fluid nozzle 0.019-0.35"
Inline filter of 60 mesh if desired

Plural Spray | Fixed ratio pump 4:1 by volume
Heated hoppers and hoses
50 ft whip hose
self-cleaning reverse-a-tip spray nozzle 0.19-0.35"
Note: The "A" side should be at a minimum of 110 °F (43 °C) and the "B" side at 90-100 °F (32-38 °C). This will ensure proper spraying of PLASITE 4555 S.
Take care to prevent the mixed material from setting up in your hoses. For best results, keep your hoses as short as possible, purge them immediately if work is interrupted, keep them out of direct sunlight and insulated from hot surfaces.

APPLICATION PROCEDURES

General

Before mixing and applying any material, make sure environmental conditions are satisfactory for application. 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. this requirement.

Spray: Immediately before applying a spray coat, stripe all continuous welds and edges with a brush-coat to assure adequate protection of these areas.

All spray equipment should be clean and in proper working order. Contact Carboline Technical Service for start-up and clean-up procedures. Adjust pressure to 50-70 psi 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. Apply material to specified thickness. Apply criss-cross multi-passes, moving gun at a fairly rapid rate, maintaining a wet appearing film. Use a wet film thickness gauge to monitor film build.

LINING REPAIR

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 the touch. Coating on floors must be able to support foot traffic. If the first coat cures more than 24-hours, lightly sand or mechanically abrade the surface after scrubbing it down with soap and water. Any surface to be touched up or recoated should be protected. When the recoat material is applied, the surface must be dry and free of all dirt, dust, debris, oil, grease and other contamination.

Force curing may be desirable in certain circumstances. Check with Carboline's Technical Service Department. Plasite 4555 S does have a propensity to blush during its cure cycle. The blush is to be removed before top-coating or placing this material into food related service.

Film Build

Film build decreases with age
Fresh: Over 60 mils
3-6 months: 30-50 mils

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	75°F (24°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	150°F (66°C)	100°F (38°C)	100°F (38°C)	85%

Substrate temperature should be 5 °F (3 °C) above the dew point.

CURING SCHEDULE

Surface Temp.	Dry to Touch	Immersion Service
75°F (24°C)	12 Hours	NR
150°F (66°C)	NR	4 Hours

Flash for 15 minutes and raise temperature 30 °F every 30 minutes. Hold at 150 °F for four hours.

CLEANUP & SAFETY

Cleanup

Clean with Plasite Thinner 2. 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

Packaging | PLASITE 4555 S is available in five gallon units

Shelf Life | Part A: 6 months
Part B: 24 months

Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.

Storage Temperature & Humidity | Store tightly sealed in original container at 50-85 °F (10-29 °C). For the 24-48 hours just prior to use, narrow the storage temperature (to 70-85 °F/21-29 °C) to facilitate ease of mixing.

Flash Point (Setaflash) | Part A: 300 °F (149 °C)
Part B: 486 °F (252 °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.