SELECTION & SPECIFICATION DATA

Generic Type	Monolithic epoxy liner
Designation	**This is a Carboline Specialty Product** Minimum order quantities and special pricing will apply in North America. Contact your Carboline Sales Representative for more details.
Description	Plasite 5302 is an epoxy monolithic liner formulated for chemical and abrasion resistance in continuous immersion service.
Features	• Cures quickly • Form an exceptionally tough, impact and abrasion resistant surfaces • Excellent adhesion to concrete, steel and wood • Non-shrinking • Minimum down time • Excellent resistance to water, oil, brine, most acids and alkalies
Typical Uses	• Ventilating Systems • Fourdrinier Pits • Conveyor Troughs • Conveying Tunnels • Pumps • Chutes • Tanks • Acid Pits • Trough Walls • Foundations • Cyclones • Sand Hoppers • Clarifiers • Metal Pans • Trenches
Color	Gray
Solids Content	By Volume 100%
Coverage Rate	Coverage based on a normal surface. A Standard Unit of Plasite 5302 will cover 132 ft2 at 1/8” thick. **Primer Coat** One Part A and one Part B is sufficient for priming a surface area of 66 ft^2. **Liner Coat** One Part A, one Part B and one Part C covers 11 ft^2 at 1/8” thickness. **Gel Coat** One Part A and one Part B also covers a surface area of 66 ft^2 Note: The resins (Part A) and the hardeners (Part B) for the primer, liner and gel coat are identical and are used interchangeably.
VOC Values	**As Supplied** : 0 lbs/gal (0 g/l)

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.

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 2-5. Linings surface prep.

Metal
Degrease surface prior to sandblasting. Use organic solvents, alkaline solutions, steam, hot water with detergents or other systems that will completely remove dirt, oil, grease, etc.
Blast the surface to near white SSPC-SP10 or NACE No. 2 using a Venturi blast nozzle with 100 psi air. To produce the 4 mil minimum anchor pattern or “tooth,” the blasting media used shall be a properly graded, clean, sharp angular abrasive similar to Humble Abrasive Flint S7 (6-30 mesh), Steel Grit (HG25), or BLACK BEAUTY® (BB1040).

PERFORMANCE DATA

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

Test Method	System	Results
Compressive Strength (ASTM D695)	Plasite 5302	13,000 - 15,000 psi
Flexural Strength (ASTM D790)	Plasite 5302	5300 - 6000 psi
Modulus of Elasticity (ASTM D695)	Plasite 5302	1.312×10^{6}
Tensile Strength (ASTM D638)	Plasite 5302	1500 - 2500 psi
Thermal Coefficient of Linear Expansion (ASTM D696)	Plasite 5302	9.16×10^{-6} in/in°F

MIXING & THINNING

Mixing
Primer: Mix Parts A & B thoroughly (the pot life or working life is approximately 20 minutes in the can).
Liner: Empty the contents of Part B into Part A and mix thoroughly. Then empty the mixture into a mixer, draining the can for about 1/2 minute. Start mixer and slowly add Part C and mix approximately 5 minutes.
Gel Coat: Mix Parts A & B thoroughly (the pot life or working life is approximately 20 minutes in the can).
IMPORTANT! The pot life or working life of the liner blend is 30 minutes. Always pour mixed batches as soon as blended.
IMPORTANT! Mixed materials remaining in container will produce heat and may smoke. Keep away from combustible materials. Do not reseal containers!
Note: Person mixing should wear a dust mask or respirator. A mechanical mixer designed for quick, thorough mixing of aggregated epoxy coatings is needed.

Thinning
Not Recommended

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.

Brush & Roller (General)	Apply by brush, roller or trowel when needed.
Brush	Use a synthetic bristle brush.
Roller	Use a short-nap natural roller cover with solvent resistant core.

APPLICATION PROCEDURES

General

Prior to application, all three components and equipment must be stored at 70-85 °F (21-29 °C) for at least 48 hours.
CAUTION!! Application in direct sunlight and rising surface temperature may result in blistering of the materials due to expansion of entrapped air or moisture in the concrete. Concrete surfaces that have been in direct sunlight must be shaded for 24 hours prior to application and remain shaded until the initial set has taken place. When the surface temperatures are rising, it may be necessary to postpone the application or apply during the cooler evening hours.

Primer

Apply by brush or roller. Apply as thin a film as possible to wet the surface. CAUTION! Excessive primer application may cause liner to sag. Note: If primer hardens before liner is applied, it must be sweep blasted removing all gloss before topcoating.

Liner

Spread liner evenly over surface. Build up low spots to desired thickness. Finish each batch as you go. A 3-1/2” x 10” trowel with rounded corners (referred to as a swimming pool trowel) is recommended for liner application.

Gel Coat

A gel coat is recommended to provide maximum chemical resistance. The gel coat may be applied by brush or roller once the liner has hardened enough to allow application without damaging the liner. Make sure all pores or trowel pulls are completely sealed, keeping as thin a film as possible.

Edges

If it is necessary to stop when applying Plasite 5302 liner, do not feather the liner out but, using the edge of your trowel, cut a sharp (90°) edge. When work is resumed, simply prime edge as you prime substrate.

Material can be applied to steel at a minimum of 60 °F (15.6 °C) but needs to be raised to 70 °F (21 °C) for curing. Minimum material temperature is 70 °F (21 °C).

CURING SCHEDULE

Surface Temp.	Cure Time
70°F (21°C)	72 Hours
130°F (54°C)	8 Hours
150°F (66°C)	6 Hours
170°F (77°C)	4 Hours

Note: Plasite 5302 will harden in 8 hours at 70 °F (21 °C)

Ambient Cure

This coating should not be applied when air or the surface temperature is below 60 °F (21 °C). A minimum substrate temperature of 70 °F (21 °C) is required for proper polymerization within 24 hours after the final coat is applied.

CLEANUP & SAFETY

Cleanup	Cured or hardened Plasite 5302 is almost impossible to remove. Clean tools and equipment immediately with hot, soapy water or Plasite Thinner #71.
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 and product is thinned, 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

Packaging	A Standard Unit consists of: 16 cans Part A Resin (each 0.28 gal) 16 cans Part B Hardener (each 0.04 gal) 12 bags Part C (Plasite 5300 Series aggregate)
Shelf Life	12 months at 70 °F (21 °C) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	25-85 °F (-4-29 °C) 0-90% Relative Humidity
Storage	Store indoors.
Flash Point (Setaflash)	Part A: 255 °F (124 °C) Part B: 217 °F (102 °C) Part C: n/a

WARRANTY

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