

SELECTION & SPECIFICATION DATA

Generic Type	Ultra high build epoxy
Description	Designed as a premium-grade, ultra-durable epoxy lining, Hydroplate 6500 is ideally suited for use on both concrete and steel surfaces in aggressive, hydrogen sulfide rich municipal and industrial wastewater environments. This reinforced, high-build epoxy offers swift return-to-service times and the convenience of single leg application. Hydroplate 6500 ensures exceptional longevity with its remarkably low permeability and outstanding chemical resistance, guaranteeing long-term durability and performance.
Features	• Ultra high build - Up to 250 mils in a single coat • Batch mix formulation, single-leg airless spray • High impact resistance • Superior adhesion properties • Excellent abrasion resistance and flexibility • Can be applied as a single or multi-coat system • Fast return to service • Passes ASTM G210 - Severe Wastewater Analysis Test (SWAT) • Meets the requirements of AWWA C210 • Glass flake and ceramic reinforced • Color formulation validates consistent mix • Low temperature cure
Typical Uses	Water treatment facilities, immersed steel and concrete in corrosive wastewater environments, water transmission pipe, ductile iron pipe, clarifiers, digesters, lift stations, collection systems, and manholes
Color	Buff (0200)
Finish	Gloss
Primer	Self-priming on steel and most concrete surfaces. To prevent outgassing or for concrete substrates with excessive moisture vapor transmission, a primer is recommended, such as Carboguard 1340 series, Carboguard 510, or Hydroplate 1080.
Dry Film Thickness	20 - 250 mils (508 - 6350 microns) per coat
Solids Content	By Volume 100%
Theoretical Coverage Rate	1604 ft ² /gal at 1.0 mils (39.4 m ² /l at 25 microns) 80 ft ² /gal at 20.0 mils (2.0 m ² /l at 500 microns) 6 ft ² /gal at 250.0 mils (0.2 m ² /l at 6250 microns) Allow for loss in mixing and application.
VOC Values	As Supplied : 11 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 and repaired again.

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SUBSTRATES & SURFACE PREPARATION

Concrete	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 3-5. This product can tolerate SSD (saturated surface dry) surfaces. Consult Carboline Technical Service for more specific recommendations.
Non-Ferrous Metals	Surface profile should be a dense angular 1.5 - 3 mils and is best achieved through abrasive blasting in accordance with SSPC-SP16 for atmospheric exposure, or SSPC-SP17 for immersion environments.
Ductile or Cast Iron	Immersion and Buried Service: Abrasive blast clean per NAF 500-03-04. Non-Immersion: Remove all oil and grease from surface by Solvent Cleaning per NAF 500-03-01.

MIXING & THINNING

Mixing	This product may be batch mixed and applied using standard airless spray equipment. IMPORTANT: Power mix each component separately, then combine and power mix until homogenous. Component Details for Colors: Buff (0200): The Part A is white (0800) and the Part B is buff (0200)
Thinning	Thinning not normally required.
Ratio	2:1 by volume (Part A to Part B)
Pot Life	30 minutes at 75°F (24°C). Consult Carboline Technical Service for techniques to maximize 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.

General	This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from equipment manufacturers.
Airless Spray	Pump Ratio: 60:1 (min.) GPM Output: 2.5 (min.) Material Hose: 3/8" I.D. (min.) Tip Size: 0.025"-0.035" Output PSI: > 2,500 PSI PTFE packings are recommended and available from the pump manufacturer.
Plural Component Airless Spray	Fixed-ratio (2:1 by volume) plural component equipment may also be used if the material cannot be sprayed within the pot life of the mixed material. Plural spray rig shall have heated hoppers, heated hoses to a mixer manifold through (at least two) static mixers to a 15-25 ft. 3/8" I.D. whip hose. Pre-mix the separate components prior to adding or incorporating into plural component equipment. Heat the material to a minimum of 90°F (32°C), do not heat material above 120°F (48°C).

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	30°F (-1°C)	0%
Maximum	90°F (32°C)	125°F (52°C)	110°F (43°C)	85%

This product requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

CURING SCHEDULE

Surface Temp.	Dry to Touch	Dry to Handle
30°F (-1°C)	36 Hours	52 Hours
50°F (10°C)	18 Hours	28 Hours
60°F (16°C)	12 Hours	26 Hours
75°F (24°C)	7.5 Hours	9.5 Hours
90°F (32°C)	3.5 Hours	5 Hours

Dry to Touch and Dry to Recoat is normally 7.5 hours at 75°F (24°C).

Cure for Service: Cure for service times are dependent on curing conditions and expected immersion exposure. **Cure to immersion service in water and wastewater environments in 10 hours at 75°F.** Film hardness (Shore D of 75 or greater) and/or solvent resistance (passes a 25 MEK solvent double-rubs*) are good indications that the lining is suitable for immersion service. Typically this can be from 10-72 hours or longer depending on the curing conditions.

Maximum recoat time is 30 days at 75°F (24°C) and reduces in half for each additional 15°F increase of surface temperature. If the product has exceeded the maximum recoat time, de-gloss and roughen by light sanding or mechanically abrade the surface and remove dust prior to topcoating.

*No significant color pick-up and some down-glossing is acceptable

CLEANUP & SAFETY

Cleanup | Thinner #2 or #76 are recommended for clean up.

Safety | Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions.

PACKAGING, HANDLING & STORAGE

Packaging | 15 Gal (56.8 L) Kit
Part A: (2) 5 gallon buckets (Base)
Part B: 5 gallon bucket (Hardener)
4.5 Gal (17.03 L) Kit
Part A: Short filled 5 gallon bucket
Part B: Short filled 3 gallon bucket

Shelf Life | Part A: 12 months at 75 °F (24°C)
Part B: 12 months at 75 °F (24°C)

Storage Temperature & Humidity | 40-110 °F (4-43 °C)
0-90% Relative Humidity

Shipping Weight (Approximate) | 4.5 Gallon Kit - 53 lbs (24 kg)
15 Gallon Kit - 174.5 lbs (79.15 kg)

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PACKAGING, HANDLING & STORAGE

Flash Point (Setaflash)	Part A: > 200°F (93 °C)
	Part B: > 200 °F (93 °C)

WARRANTY

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