

RR&C High Performance Ceramic Epoxy

SELECTION & SPECIFICATION DATA

Type	Polyamide Epoxy
Description	RR&C High Performance Ceramic Epoxy is a thin film epoxy lining that forms a tight bond, even to damp and marginally prepared surfaces including tightly adhered rust. It protects steel and concrete primary and secondary containment structures against organic acids, alkalis and salts.
Features	<ul style="list-style-type: none"> • 100% solids, no VOCs • Long-term wear protection • Meets AWWA 210 performance requirements
Uses	<ul style="list-style-type: none"> • Tank linings • Secondary containment • Multipurpose epoxy
Color	Light gray, black, off white
Finish	Gloss
Dry Film Thickness (DFT)	8 – 12 mils per coat
Solids Content	99% – 100% by volume

SUBSTRATES & SURFACE PREPARATION

All	Substrates must be clean, dry and free of contaminants.
Steel	<p>Immersion: SSPC-SP 10/NACE 2 Near White Metal Blast with angular profile of 2.5 – 3.5 mils.</p> <p>Non-immersion: SSPC-SP 6/NACE 3 Commercial Blast with angular profile of 1.5 – 3.0 mils, SSPC-SP 2 Hand Tool or SSPC-SP 3 Power Tool Cleaning are suitable for mild environments.</p> <p>Self-priming on steel.</p>
Concrete or Concrete Masonry Units (CMU)	Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete surfaces may require filling. Mortar joints should be cured a minimum of 15 days. Prime with RR&C Concrete Epoxy Primer.
Previously Painted Surfaces	Consult with your Sherwin-Williams representative.

MIXING & THINNING

Ratio	3A: 1B for plural spray
Mixing	For single leg spray, brush or roller, do not mix partial kits. Power mix parts A and B separately then combine and power mix.

Thinning	<p>Spray: Up to 6.5 oz/gal (5%) with Sherwin-Williams 54 reducer</p> <p>Brush: Up to 16 oz/gal (12%) with Sherwin-Williams 54 reducer</p> <p>Roller: Up to 16 oz/gal (12%) with Sherwin-Williams 54 reducer</p>
Pot Life	<p>8 hours 20 minutes at 41°F (5°C)</p> <p>1 hour and 20 minutes at 77°F (25°C)</p> <p>25 minutes at 90°F (32°C):</p> <p>Pot life is shorter at higher temperatures. A larger volume of mixed material will have a shorter pot life than a smaller volume.</p>
Cleanup	MEK or Acetone

APPLICATION GUIDANCE

Spray Application	The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.
Airless Spray Plural Component	<p>Tip Size: 0.021 – 0.029 reversible type</p> <p>Part A Fluid Line: 1/2-inch ID</p> <p>Part B Fluid Line: 3/8-inch ID</p> <p>Spray Line: 1/2-inch ID x 100 feet maximum</p> <p>Whip: 1/4-inch – 3/8-inch ID</p> <p>Whip Length: 10 ft x 1/4-inch ID</p> <p>Pump Size: 56:1 or greater</p> <p>Output: 3000 – 5500 psi, filter removed</p> <p>Static Mixer: 2 x 1/2-inch ID x 12-inch (24-inches total length) behind mixing valve</p> <p>Part A Temperature: 130°F – 135°F (54°C – 57°C)</p> <p>Part B Temperature: 90°F – 95°F (32°C – 35°C)</p>
Airless Spray Single Leg or Hot Pot	<p>Pump Size: 65:1 or greater</p> <p>Output: 3500 – 5500 psi, filter removed</p> <p>Hose Length: 50 ft x 3/8-inch ID</p> <p>Whip Length: 10 ft x 1/4-inch ID</p> <p>Part A resin and Part B hardener should be heated individually before mixing so product will atomize properly in delivering paint to the substrate.</p>
Brush	Use a medium bristle brush.
Roller	Use a short-nap synthetic roller cover with phenolic core.

CURE SCHEDULE & RECOAT WINDOW

TEMPERATURE	MINIMUM RECOAT	MAXIMUM RECOAT	RETURN TO SERVICE (HYDROCARBON IMMERSION)
50°F (10°C)	8 hours	14 days	7 days
77°F (25°C)	4 hours	14 days	72 hours
140°F (60°C)	1 hour	Not recommended	4 hours

Return-to-service varies with chemical exposure. Consult with your Sherwin-Williams representative.

RR&C High Performance Ceramic Epoxy

SAFETY

Safety Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and safety data sheets before using.

Ventilation Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.

PACKAGING, ESTIMATING & HANDLING

ITEM#	PRODUCT	PACKAGING
HPCEB-1GLKT-SW	RR&C High Performance Ceramic Epoxy Black Kit - Small	0.9 gal (3.8 L) Kit
	-Part A Resin, Black	0.7 gal (2.7 L)
	-Part B Hardener	0.3 gal (1.1 L)
HPCEB-4GLKT-SW	RR&C High Performance Ceramic Epoxy Black Kit - Large	3.6 gal (13.7 L) Kit
	-Part A Resin, Black	2.5 gal (9.5 L)
	-Part B Hardener	1.1 gal (4.2 L)
HPCELG-1GLKT-SW	RR&C High Performance Ceramic Epoxy Light Gray Kit - Small	1 gal (3.8 L) Kit
	-Part A Resin, Gray	0.7 gal (2.7 L)
	-Part B Hardener	0.3 gal (1.1 L)
HPCELG-4GLKT-SW	RR&C High Performance Ceramic Epoxy Light Gray Kit - Large	3.9 gal (15.2 L)
	-Part A Resin, Gray	2.8 gal (11 L)
	-Part B Hardener	1.1 gal (4.2 L)
HPCEW-1GLKT-SW	RR&C High Performance Ceramic Epoxy Off White Kit - Small	1 gal (3.8 L) Kit
	-Part A Resin, White	0.7 gal (2.7 L)
	-Part B Hardener	0.3 gal (1.1 L)
HPCEW-4GLKT-SW	RR&C High Performance Ceramic Epoxy Off White Kit - Large	3.9 gal (14.8 L)
	-Part A Resin, White	2.8 gal (11 L)
	-Part B Hardener	1.1 gal (3.8 L)

Theoretical Coverage 200 square feet per gallon at 8 mils
133 square feet per gallon at 12 mils
Allow for loss in mixing and application.

Storage & Shelf Life

Maintain products in original packaging and sealed until ready for use. Estimated shelf life is 12 months when stored in a dry area at 70°F (21°C). Actual shelf life may vary with storage conditions. Do not store below 40°F (4°C) or above 110°F (43°C).

If there is any question with respect to the quality of the components, check reactivity prior to use. For assistance consult with your Sherwin-Williams representative.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	SYSTEM	VALUE
Dry adhesion ASTM D4541	Blasted steel 1 coat	>2,500 psi (17 MPa)
Dry adhesion ASTM D4541	Scuffed FBE 1 coat	>2,000 psi (14 MPa)
Wet adhesion ASTM D4541 5 days 158°F (70°C) water	Blasted steel 1 coat	>2,500 psi (17 MPa)
Abrasion ASTM D4060 1000 cycles, CS17 wheel 1000 gm load	Blasted steel 1 coat	80 mg loss 770 cycles per mil
Compressive strength ASTM C109	Blasted steel 1 coat	10,000 – 13,000 psi (69 – 90 MPa)
Hardness ASTM D2240	Blasted steel 1 coat	83 – 90 Shore D

Meets the performance requirements of AWWA C210

SERVICE TEMPERATURE

SYSTEM	MAXIMUM TEMPERATURE
Dry, continuous	220°F (104°C)
Dry, intermittent	250°F (121°C)
Under insulation	175°F (79°C)

Temperature limitations will vary with chemical exposure. Consult with your Sherwin-Williams representative.

Discoloration and loss of gloss occur above 200°F (93°C) but do not affect performance.

Rev. 12/2025



Manufactured for and Distributed
Exclusively by Sherwin-Williams