

## Selection & Specification Data

<b>Generic Type</b>	Solvent Free Aromatic Polyurethane Hybrid
<b>Description</b>	Environmentally friendly, advanced hybrid technology, plural-component applied coating used as a lining for water, wastewater, manholes, penstocks, dam gates, pipelines and other aggressive immersion applications. Provides protection against microbiologically induced corrosion (MIC) and hydrogen sulfide corrosion found in wastewater treatment service.
<b>Features</b>	<ul style="list-style-type: none"> <li>• <b>UL approved for ANSI/NSF Std. 61 potable water</b></li> <li>• Complies with 21 CFR 175.300 Method D, E, &amp; G and Direct Dry Food Contact</li> <li>• Complies with Greenbook</li> <li>• Cold temperature cure</li> <li>• Fast cure and walk on time</li> <li>• Excellent barrier properties, low permeability</li> <li>• Single-coat application 60 to 125 mils</li> <li>• Bridges normal shrinkage cracks in concrete</li> <li>• True monolithic film on steel and concrete</li> <li>• Encapsulates rivets, bolts, and edges in one coat</li> <li>• Outstanding abrasion, impact and tear resistance</li> <li>• Combines polyurethane and polyurea technologies to form a hybrid polyurethane</li> </ul>
<b>Color</b>	Light Tan (0200) is the only standard color that is potable water approved. Other colors available are Blue (0100), Light Blue (P100), Black (0900), Beige (S200) & Red (0500). All colors are unmatched colors.
<b>Finish</b>	Gloss
<b>Primers</b>	Steel: Self-priming Concrete: Self-priming when concrete is dry. Use Phenoline 311, Carboguard 1340 WB, Carboguard 690 or Plasite 4503 as primer over damp concrete.
<b>Dry Film Thickness</b>	20.0 - 125.0 mils (508 - 3175 microns) Total DFT  20 to 125 mils (508 to 3175 microns) for most applications on steel 60 to 125+ mils (1524-3175+ microns) or higher for most applications on concrete.
<b>Solids Content</b>	By Volume 100%
<b>Theoretical Coverage Rate</b>	1604 ft <sup>2</sup> at 1 mil (39 m <sup>2</sup> /l at 25 microns) 80 ft <sup>2</sup> at 20 mils (2 m <sup>2</sup> /l at 500 microns) 13 ft <sup>2</sup> at 125 mils (0.3 m <sup>2</sup> /l at 3125 microns)  Allow for loss in mixing and application.
<b>VOC Values</b>	As Supplied 0
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Reactamine 760 will tend to yellow or darken in exterior UV exposure but will not affect performance</li> <li>• Not recommended for exposure to concentrated acids, aromatic, ketone or chlorinated solvents</li> <li>• Dry temperature resistance from -20 to 180°F (-29 to 82°C)</li> </ul>

## Substrates & Surface Preparation

<b>General</b>	Surfaces must be properly cleaned. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
<b>Steel</b>	SSPC-SP10 with a 3.5 mil (89 micron) to 5 mil (127 microns) surface profile.
<b>Concrete</b>	Concrete must be cured 28 days at 75°F (24°C) Prepare surfaces in accordance with SSPC-SP13/NACE 6 or ICRI 03732 to obtain CSP 4 to 6 roughness. Attain a surface profile resembling extra coarse sandpaper. Eliminate leaks and infiltrations and remove standing water. Resurface areas with excessive cavities (bugholes) or exposed aggregate using a high-strength resurfacing product. Carboguard 510 may be used to patch bugholes or to resurface. Before application of Reactamine 760, the surface must be free of condensation and visible moisture. Vacuum to dust-free condition before application. Reactamine 760 can go direct to the concrete if the concrete is clean and dry. Use a moisture tolerant primer before applying Reactamine 760 on damp surfaces.

## Performance Data

Test Method	System	Results
ASTM 2794, Impact Direct and Reverse	1 ct. Reactamine 760	160 inch-pounds
ASTM B117, Salt Fog Resistance for 1,000 hours	1 ct. Reactamine 760	Plane No Blisters Scribe No Blisters & 1.7 mm UCC
ASTM D 624 Tear Strength	1 ct. Reactamine 760	347 pli
ASTM D2240, Shore D Hardness	1 ct. Reactamine 760	60-65
ASTM D2247, Humidity Resistance	1 ct. Reactamine 760	1,000 hours with no effect
ASTM D4060 (1000 cycles with 1000g), Abrasion Resistance	1 ct. Reactamine 760	37 mg loss,
ASTM D412 Tensile strength Elongation	1 ct. Reactamine 760	2,000 to 3,000 psi 90 to 110%
ASTM D522, Flexibility Method B, 1/8 inches Cylindrical Mandrel Bend	1 ct. Reactamine 760	Pass
ASTM D570 Water Absorption, Long Term Method	1 ct. Reactamine 760	Less than 0.7%
ASTM E-96, Permance	1 ct. Reactamine 760	0.23 Perms
ASTM E96, Water Vapor Transmission Rates	1 ct. Reactamine 760	0.1 g/100 in <sup>2</sup> /24 hours
Membrane Bio-Reactor Lining, 20 cycles	1 ct. Reactamine 760	Pass
Pickle Jar Test from Greenbook Section 210-2.3	1 ct. Reactamine 760	Pass

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# Reactamine<sup>®</sup> 760

## Mixing & Thinning

<b>Gel Time</b>	3 to 4 minutes at 70 to 80°F (21 to 27°C)
<b>Mixing</b>	Power mix Resin (Part A) with an air-driven agitator for 30 minutes just prior to use. Catalyst (Part B) requires no mixing before using unless tinted.
<b>Thinning</b>	Not recommended
<b>Ratio</b>	2:1 Ratio (A to B) by volume

## 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.

**Plural Component Airless Spray** Heated plural airless will be a fixed-volume ratio 2A:1B. Standard equipment typically includes heated hoses, drum heaters, pressure feed from 50 gallon steel drums or heated hoppers, recirculation system, automatic high-pressure shut-off system. Please call Carboline Technical Service (1-800-848-4645) for complete pump, static mixer, whip hose and airless gun with tip set up recommendations. Applicator training is required and spray equipment must be approved by Carboline's Field Technical Service. Note: Part A optimum material temperature should be 80° to 90°F (27° to 32°C) and Part B should be 75° to 85°F (24° to 29°C).

**Touch Up** Brush apply material from Reactamine 760 Repair Kit. For use on small areas only. Available in dual cartridge system for spray application. Requires HSS (hand spray system) gun to apply. Contact Technical Service for details.

## Application Conditions

Condition	Material	Surface	Ambient	Humidity
Minimum	75 °F (24 °C)	35 °F (2 °C)	25 °F (-4 °C)	0%
Maximum	110 °F (43 °C)	140 °F (60 °C)	120 °F (49 °C)	95%

Application on substrate from 110 to 140°F will require special application techniques. Please consult Carboline's Technical Service for details. Industry standards are for substrate temperatures to be 5°F (3°C) above the dew point. Caution: This product has some moisture tolerance, but it can be moisture sensitive depending on conditions. Excessive material temperatures can reduce film build. See detail material temperature range for part A and B in plural component airless spray section.

## Curing Schedule

Surface Temp. & 50% Relative Humidity	Cure for Most Immersion Services	Dry Time (Light Foot Traffic)	Dry to Touch	Maximum Recoat Time
38 °F (3 °C)	16 Hours	6 Hours	4 Hours	36 Hours
73 °F (23 °C)	2 Hours	2 Hours	1 Hours	18 Hours

2 hour cure to immersion refers to water and wastewater service only. Inquire for other services, consult with Carboline's Technical Service Department. These times are based on recommended dry film thickness. If maximum recoat is exceeded, the surface must be abraded to roughen surface and cleaned of dust and debris and then solvent wiped with MEK or acetone prior to the application of additional coats. Maximum recoat time with itself: 4 hours in direct sunlight, 8 hours not in sunlight and 18 hours inside closed tank at 73°F (23°C).

## Testing / Certification / Listing

**Underwriters Laboratories, Inc** Reactamine 760 (color 0200) was tested by UL and is approved for ANSI/NSF Standard 61 (potable water lining). It is approved for water tanks greater than or equal to 100 gallons and pipes greater than or equal to 20 inches. Maximum film thickness is 125 mils (3175 microns) DFT. Minimum cure time for potable water service is 4 hours at 61°F (16°C).

## Packaging, Handling & Storage

<b>Shelf Life</b>	Part A: Min. 24 months at 75°F (24°C) Part B: Min. 12 months at 75°F (24°C)  When kept at recommended storage conditions and in original unopened containers
<b>Shipping Weight (Approximate)</b>	150 Gallon kit weighs 1400 lbs. (635 kg) 75 Gallon kit weighs 700 lbs. (318 kg) 15 Gallon kit weighs 140 lbs. (63.5 kg) 3 Quart Repair Kit weighs 7 lbs. (3.2 kg) 900 ml Dual Cartridges, Six Cartridges to a carton weighs 43 lbs. (19.5 kg)
<b>Storage Temperature &amp; Humidity</b>	40 to 120°F (4 to 49°C) 0 to 95% Humidity Store indoors and keep Dry. Do not place drums directly on concrete or earth. Store on top of wood slats or pallets. Blanket all partial drums with nitrogen gas to prevent moisture contamination. Avoid freezing. Do not open until ready to use. Rotate Resin (Part A) drums regularly if stored for the long term.
<b>Flash Point (Setaflash)</b>	Part A: >300°F (148°C) Part B: 390°F (199°C)



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