Reactamine® 760

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Solvent Free Aromatic Polyurethane Hybrid
Description	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.
Features	• **UL approved for ANSI/NSF Std. 61 potable water** • Complies with 21 CFR 175.300 Method D, E, & G and Direct Dry Food Contact • Complies with Greenbook • Cold temperature cure • Fast cure and walk on time • Excellent barrier properties, low permeability • Single-coat application 60 to 125 mils • Bridges normal shrinkage cracks in concrete • True monolithic film on steel and concrete • Encapsulates rivets, bolts, and edges in one coat • Outstanding abrasion, impact and tear resistance • Combines polyurethane and polyurea technologies to form a hybrid polyurethane *Valid if manufactured at a certified location.
Color	Light Tan (0200), and Light Blue (P100) are the only colors which are potable water approved. Other colors available are Blue (0100), Black (0900), Beige (S200) White (0800) & Red (0500). All colors are unmatched colors.
Finish	Gloss
Primer	Steel: Self-priming Concrete: Please reference "Concrete Application Guide".
Dry Film Thickness	20 - 125 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.
Solids Content	By Volume 100%
Theoretical Coverage Rate	1604 ft²/gal at 1.0 mils (39.4 m²/l at 25 microns) 80 ft²/gal at 20.0 mils (2.0 m²/l at 500 microns) 13 ft²/gal at 125.0 mils (0.3 m²/l at 3125 microns) Allow for loss in mixing and application.
VOC Values	As Supplied 0
Limitations	• Reactamine 760 will tend to yellow or darken in exterior UV exposure but will not affect performance • Not recommended for exposure to concentrated acids, aromatic, ketone or chlorinated solvents • Dry temperature resistance from -20 to 180 °F (-29 to 82 °C)

SUBSTRATES & SURFACE PREPARATION

General	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.
Steel	SSPC-SP10 with a 3.5 mil (89 micron) to 5 mil (127 microns) surface profile.
Concrete	Concrete must be cured 28 days at 75°F (24°C) or achieve a compressive strength greater than 3000 psi and a relative humidity of less than 85%. Prepare surfaces in accordance with SSPC-SP13/NACE 6 or ICRI 03732 to obtain CSP 4 to 6 roughness. 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 or 510 SG may be used to patch bugholes or to resurface. Before application, the surface must be free of dust, condensation and visible moisture. Reactamine 760 may go direct to concrete if the concrete is clean and dry however a primer is recommended if moisture vapor is present. Do not proceed with MVE >3 lbs or RH >85% without contacting Carboline technical service for specific project recommendations.

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 Cylinderical 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 in²/24 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

MIXING & THINNING

Mixing	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.
Thinning	Not recommended
Ratio	2:1 Ratio (A to B) by volume
Gel Time	3 to 4 minutes at 70 to 80°F (21 to 27°C)

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.	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	1.5 Hours	1 Hour	18 Hours

*2 hour cure to immersion refers to water and wastewater sevice 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).

CLEANUP & SAFETY

Cleanup

Use Thinner 2, Thinner 225E, or Thinner 76. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

Safety

Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use.

CLEANUP & SAFETY

Caution	This product does not contain any solvents; however, clean-up solvents that may be used do contain 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, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

TESTING / CERTIFICATION / LISTING

Underwriters Laboratories, Inc.	**Reactamine 760 (color 0200 or P100) 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

Shelf Life	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
Storage Temperature & Humidity	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.
Shipping Weight (Approximate)	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)
Flash Point (Setaflash)	Part A: >300°F (148°C) Part B: 390°F (199°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.