

SELECTION & SPECIFICATION DATA

Generic Type	Solvent Free High Build 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. Ultra high build product designed to be applied at high thickness in one coat application.
Features	<ul style="list-style-type: none"> • High film build (5000 microns / 5mm plus) in one coat • Complies with Greenbook • UL approved for potable water* • Cold temperature cure • Fast cure and walk on time • Excellent barrier properties, low permeability • Can be used to resurface highly deteriorated concrete • 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 <p>*Valid if manufactured at a certified location.</p>
Colour	Light Tan (0200)
Finish	Gloss
Primer	<p>Steel: Self-priming</p> <p>Concrete: Self-priming: Apply a thin coat of 10-20 mils of Reactamine 760 HB to allow for outgassing of the concrete. Once tacky (1-15 minutes), apply the remainder of Reactamine 760 HB to specified thickness.</p>
Film Build	<p>500 - 5000 microns Total DFT</p> <p>500 to 3800 microns dry for most applications on steel</p> <p>1500 to 5000+ microns dry, or higher for most applications on concrete.</p>
Solids Content	By Volume 100%
Theoretical Coverage Rates	<p>2.0 m² at 500 microns</p> <p>0.2 m² at 5000 microns</p> <p>Allow for loss in mixing and application.</p>
VOC Value(s)	No measurable VOC levels
Limitations	<ul style="list-style-type: none"> • Reactamine 760 HB 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 ranges -29°C to 82°C.

Reactamine 760 HB

PRODUCT DATA SHEET



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-SP 10 (AS 1627.4 Sa 2½) with a 90 to 120 microns surface profile.
Concrete	Concrete must be cured 28 days at 24°C. Prepare surfaces in accordance with SSPC-SP13/ NACE 6 or ICRI 03732 to obtain a CSP 5 to 7 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 our Carboguard 510SG, or other approved resurfacers. Before application of Reactamine 760 HB, the surface must be free of condensation and visible moisture. Vacuum to dust-free condition before application. Reactamine 760 HB may be applied direct to the concrete if the concrete is clean and dry or to primed concrete.

PERFORMANCE DATA

Test Method	System	Results
ASTM 2794 Indirect Impact Resistance	1 ct. Reactamine 760 HB	15 inch-pounds
ASTM 2794, Impact Direct	1 ct. Reactamine 760 HB	160 inch-pounds
ASTM D 624 Tear Strength	1 ct. Reactamine 760 HB	>350 pli
ASTM D2240, Shore D Hardness	1 ct. Reactamine 760 HB	60-65
ASTM D4060 (1000 cycles with 1000g), Abrasion Resistance	1 ct. Reactamine 760 HB	85 mg loss,
ASTM D412 Tensile strength Elongation	1 ct. Reactamine 760 HB	2,800 to 3,000 psi 35 to 45%
ASTM D522, Flexibility Method A, 3/16 inches Conical Mandrel Bend	1 ct. Reactamine 760 HB	Pass
ASTM D570 Water Absorption, Long Term Method	1 ct. Reactamine 760 HB	Less than 0.87%
ASTM E-96, Permeance, B method/BW method	1 ct. Reactamine 760 HB	0.088 perms/ 0.081 perms
ASTM G95, Cathodic Disbondment, -1.5V for 31 days at 22°C (71.6°F)	1 ct. Reactamine 760 HB	0 mm disbondment
NACE TM1074, Immersion testing of various	1 ct. Reactamine 760 HB	Pass, see chemical resistance chart
Pickle Jar Test from Greenbook Section 210-2.3	1 ct. Reactamine 760 HB	Pass

MIXING & THINNING

Gel Time	3 to 4 minutes @ 25°C
Mixing	Power mix Resin (Reactamine 760 HB Part A) with an air-driven agitator for 30 minutes just prior to use. The catalyst (Reactamine 760 Part B) requires no mixing before using.
Thinning	Not recommended
Ratio	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 at 2A:1B at a 3 gallon/min (circa 10 litres / min) delivery rate. 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. Carboline recommends the WIWA® Duomix 230 or equivalent plural component airless pump. Please call Carboline Technical Service 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 27° to 32°C and Part B should be 24° to 29°C.

*WIWA is a registered trademark of the Wilhelm Wagner GmbH & Co. KG

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	24°C (75°F)	2°C (35°F)	-4°C (25°F)	0%
Maximum	43°C (110°F)	60°C (140°F)	49°C (120°F)	95%
Optimum	32°C (90°F)	21°C (70°F)	21°C (70°F)	30%

Industry standards are for substrate temperatures to be 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
3°C (38°F)	16 Hours	6 Hours	4 Hours	36 Hours
23°C (73°F)	2 Hours	2 Hours	1 Hour	12 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 time is exceeded, the surface must be abraded to roughen surface and cleaned of dust and debris and then solvent wiped with Thinner #76 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 12 hours inside closed tank at 23°C.

Reactamine 760 HB

PRODUCT DATA SHEET



TESTING / CERTIFICATION / LISTING

Potable Water Certifications	Potable Water Use Limitations @ 75°F (24°C):
	<i>Meets drinking water criteria of NSF/ANSI/CAN 600</i>
	Max DFT: 7620 microns (300 mils)
	Number of Coats: 1 to 2
	Tank Rating: >50 gal (189.271 Litres)
	Pipe Rating: 14" or larger (35.56 cm)
	Valve Rating: Not Rated
	Thinning: N/A
	4 Hour Cure Required before service
	Approved Colours: 0200 (Brown)

CLEANUP & SAFETY

Cleanup	Use Thinner #2 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.
Caution	This product does not contain flammable 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.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: Min. 24 months at 24°C Part B: Min. 12 months at 24°C
	When kept at recommended storage conditions and in original unopened containers
Storage Temperature & Humidity	4 to 43°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.
Flash Point (Setaflash)	Part A: >148°C Part B: 199°C
Shipping Weight (Approximate)	150 Gallon kit weighs 635 kg 75 Gallon kit weighs 318 kg 15 Gallon kit weighs 63.5 kg

WARRANTY

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