



## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Solvent Free Aromatic Polyurethane Hybrid Elastomeric Membrane
<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>• UL approved for ANSI/NSF Std. 61 potable water*</li> <li>• <b>Potable water approved to AS 4020:2005</b> (see Approvals NZ-AU, page 4)</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 1500 to 3000 microns</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 the advantages of polyurethane and polyurea technologies to form a high performance hybrid polyurethane</li> </ul> <p>*Valid if manufactured at a certified location.</p>
<b>Colour</b>	Light Tan (0200) standard. Special order colours (not approved for potable water in Australasia) are Light Blue (P100), Blue (0100) & Black (0900). All colours are unmatched colours and variations mix to mix may be expected.
<b>Finish</b>	Gloss
<b>Primer</b>	Steel: Self-priming Concrete: Please refer to relevant Coating Specification or contact Carboline Technical Service.
<b>Dry Film Thickness</b>	508 - 3175 microns (20 - 125 mils) Total DFT 500 to 3200 microns for most applications on steel 1500-3200+ microns) or higher for most applications on concrete.
<b>Solids Content</b>	By Volume 100%
<b>Theoretical Coverage Rate</b>	39.4 m <sup>2</sup> at 25 microns (1604 ft <sup>2</sup> at 1.0 mils) 2.0 m <sup>2</sup> at 500 microns (80 ft <sup>2</sup> at 20.0 mils) 0.3 m <sup>2</sup> at 3125 microns (13 ft <sup>2</sup> at 125.0 mils) Allow for loss in mixing and application.
<b>VOC Values</b>	<b>As Supplied : 0</b>
<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 -29 to 82°C</li> </ul>

# Reactamine 760

## PRODUCT DATA SHEET



### 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>	AS 1627.4 Class 2½ (SSPC-SP10) with a 90 to 127 microns surface profile.
<b>Concrete</b>	Concrete must be cured 28 days at 24°C and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Attain a surface profile resembling coarse sandpaper. Eliminate leaks and infiltrations and remove standing water. Resurface areas with excessive cavities (bugholes) or exposed aggregate using a high-strength, rapid-cure, zero-shrinkage resurfacing product (such as Carbocrete® 522, Carboguard® 510 SG or Carboguard® 695 PM). Fibreglass screen or geotextile fabric may be embedded with the coating to "bridge", rather than resurface cavities, thereby eliminating resurfacing compounds. Surfaces must be free of condensation and visible moisture. Vacuum to dust-free condition before application. Reactamine 760 may go direct to concrete if the concrete is clean and dry however a primer is recommended if moisture vapour is present. Do not proceed with MVE >1.46 kg / 100 m <sup>2</sup> (>3 lbs / 1000 ft <sup>2</sup> ) 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 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

### MIXING & THINNING

<b>Gel Time</b>	3 to 4 minutes within temperature range 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. If in doubt call Carboline Technical Service (NZ: 0800 258 390; AU: 1800 738 383) 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.

**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%

**Application on substrates from 43 to 60°C (maximum) will require special application techniques. Please consult Carboline's Technical Service for details.** 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	1.5 Hours	1 Hour	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 23°C.

## 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.

# Reactamine 760

## PRODUCT DATA SHEET



### CLEANUP & SAFETY

**Caution** | This product contains isocyanate. When sprayed may be harmful by inhalation - do not breath vapour or spray. Wear suitable clothing, gloves, eye and face protection, including suitable breathing protection such as an air supplied respirator or hood.  
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 local electrical 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) 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 24°C  
Part B: Min. 12 months at 24°C  
When kept at recommended storage conditions and in original unopened containers

**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)

**Storage Temperature & Humidity** | 4 to 49°C  
0 to 95% Humidity

**Flash Point (Setaflash)** | Part A: >148°C  
Part B: 199°C

**Storage** | 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.

### APPROVALS

**Approvals NZ/AU** | **Potable Water**  
Tested and approved to AS 4020:2005 as a tank & pipe lining for potable water.  
Colour 0200 Light Tan, maximum DFT 3200 µm approved for tank capacities ≥ 1600 litres and pipes ≥ 800 mm ID.  
Ref. AWQC Report ID 97543

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## **WARRANTY**

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