

**Selection & Specification Data**

<b>Generic Type</b>	Solvent free aromatic hybrid polyurethane elastomeric membrane
<b>Description</b>	Environmentally friendly, advanced hybrid technology, plural-component applied coating used as a lining for potable 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>AS 4020:2005 Approved for Potable Water</li> <li>UL approved for ANSI/NSF Std. 61 potable water</li> <li>US FDA approved for Direct Dry Food Contact - Complies with 21 CFR 175.300 Method D, E &amp; G</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 2000 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 polyurethane and polyurea technologies to form a hybrid polyurethane</li> </ul>
<b>Uses</b>	Suitable for a wide range of industrial uses such as: water tanks, manholes, wet wells, wastewater treatment structures, tank linings, pipelines, penstocks, dam gates, secondary containment and lagoon liners.
<b>Colour</b>	Light Tan (0200 Tan) standard. Special order colours that are not potable water approved, Black (0900), Light Blue (P100) and Blue (0100)
<b>Finish</b>	Gloss
<b>Primers</b>	Steel: Self-priming Concrete: Self-priming when concrete is clean and dry. A moisture tolerant primer like Phenoline 311 or Carboguard 690 should be used over damp concrete.
<b>Dry Film Thickness</b>	500 to 3200 microns for most applications on steel. 2000-3200 microns for most applications on concrete, depending of service condition and condition of the substrate.
<b>Solids Content</b>	By volume: 100%
<b>Theoretical Coverage Rate</b>	1 sq. metre per litre at 1000 microns (1mm) DFT
<b>Mix Ratio</b>	2:1 by volume (Part A : Part B)

**Selection & Spec. Data - cont'd**

<b>VOC Values</b>	As supplied: 0 grams per litre
<b>Limitations</b>	Due to its aromatic composition, Reactamine 760 will tend to yellow or darken in exterior UV exposure. This will not affect performance. Not recommended for exposure to concentrated acids, aromatic, ketone, or chlorinated solvents.

**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>	Abrasive blast AS 1627.4 Class 2½ with a 90 to 125 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. Fibreglass screen or geotextile fabric may be embedded with coating to "bridge", rather than resurface cavities, thereby eliminating resurfacing compounds. Carboguard 510 may be used to patch bugholes or to resurface. Surfaces must be free of condensation and visible moisture. Vacuum to dust-free condition before application.

**Performance Data**

Test Method	Results
ASTM D264 Tear Strength	347 pli (pounds per lineal inch) 6200 klm (kilograms per lineal metre)
ASTM D4060 Abrasion Resistance	37 mg loss
ASTM D412 Tensile Strength Elongation	2000-3000 psi (13.8-20.7 Mpa) 90-110%
ASTM D2240 Hardness	Shore D 60-65
ASTM D2794 Impact	160 inch-pounds direct & reverse 184 kilogram centimetres
ASTM D522 Flexibility	Passes Method B, 1/8" Mandrel
ASTM E-96 Water Vapour Transmission	30-35 mils, 0.1 gm / 100 in <sup>2</sup> / 24 hours 750-875 µm, 0.08 gm / 500 cm <sup>2</sup> / 24 hours
ASTM D570 Water Absorption Long Term Method	< 0.7%
ASTM E96 Permeance	0.23 Perms
ASTM D4427 Humidity Resistance	1000 hours: No Effect
Membrane Bio-Reactor Lining, 20 cycles	Pass
Pickle Jar Test Green Book Section 210-2.3	Pass
ASTM D412 Tensile Strength Elongation	13.8-20.7 MPa (2000-3000 psi) 90-110%
Temperature Limits	Dry: -30°C to 82°C

# Reactamine® 760

## Application Equipment

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. **General Guidelines:**

**Plural Component** Heated plural airless pump from GRACO, WIWA or equivalent. Airless pump will be a triplex bottom on a 2A:1B, fixed-volume ratio. 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 for complete pump, static mixer, whip hose and tip set up recommendations. Applicator training is required and spray equipment must be approved by Carboline's Field Technical Service.

**Touch-Up Repairs** Brush apply material from Reactamine 760 Repair Kit. For use on small areas only. Available in dual cartridge system from Plas-Pak. Requires Plas-Pak gun to apply. Contact Technical Service for equipment and application details.

## 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. Refer to Application Conditions for guidance on material temperatures.

**Ratio** 2:1 by volume (Part A : Part B)

**Thinning** Not recommended

**Gel Time** Gel time varies with temperature and mass.

## 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 MSDS for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

**Ventilation** When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapour concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use approved supplied air respirator.

**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 local electric code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

## Application Conditions

Condition	Material		Surface	Ambient	Humidity
	Part A	Part B			
Optimum	27°-32°C	24°-29°C	4°-60°C	4°-49°C	0-70%
Minimum	27°C	21°C	2°C	-4°C	0%
Maximum	43°C	35°C	60°C	50°C	95%

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.

## Curing Schedule

Surface Temp. & 50% RH	Dry to Tack-Free	Light Foot Traffic	Max Recoat	Water & Waste Service
3°C	4 hours	6 hours	36 hours	16 hours
23°C	1 hour	1½ hours	18 hours	2 hours*

\*2 hours applies to water and salt water service.

For other services, consult with Carboline Technical Service Department.

These times are based on recommended dry film thicknesses. If maximum recoat time is exceeded, the surface must be abraded to roughen surface, cleaned of dust and debris and then solvent wiped with MEK or acetone prior to the application of additional coats.

## Potable Water Certification

**AS 4020:2005** – Colour 0200, max thickness 3200 µm approved for water tanks ≥ 500 litres and pipes ≥ 800 mm ID.

**ANSI/NSF Std 61** - Colour 0200, max thickness 3200 µm approved for water tanks ≥ 380 litres and pipes ≥ 500 mm ID.

## Packaging, Handling & Storage

**Packaging** 60 litre 2 component kits:  
Part A: 40 litres (2 x 20 litre pails)  
Part B: 20 litres (1 x 20 litre pail)

**Flash Point (Setaflash)** Part A: > 150°C  
Part B: 199°C

**Storage Conditions** 4 – 43°C  
0 – 95% Relative 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.

**Shelf Life** Part A: Minimum 24 months at 24°C  
Part B: Minimum 12 months at 24°C

**When kept at recommended storage conditions and in original unopened containers.**

Manufactured / supplied by:-  
Altex Coatings Ltd, 91-111 Oropi Road,  
Tauranga 3112  
New Zealand  
Phone: +64 7 5411221  
Resene Paints Australia Ltd.  
T/A Altex Coatings  
7 Production Avenue  
Queensland 4214  
Australia  
Phone: +61 7 55949522



350 Hanley Industrial Court, St. Louis, MO 63144-1599  
314/644-1000 314/644-4617 (fax) www.carboline.com

An **RPM** Company

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