

**PRODUCT DATA SHEET**  
**COROLON 3210**  
**PREMIUM GRADE POLYUREA URETHANE PROTECTIVE LINING SYSTEM**

**TECHNICAL DESCRIPTION:**

Corolon 3210 is a high performance, 100% solids, spray applied, polyurea urethane elasto-plastic polymer. It is characterized by high physical properties, outstanding chemical and solvent resistance, usability under wide climatic conditions with outstanding durability. It is composed of isocyanate prepolymers which are reacted with amine prepolymers to form a polyurea-urethane elastomer. Both components are low viscosity fluids which react very quickly to form a tough polymer when mixed and applied using heated, plural component airless spray equipment.

**USAGE:** Some applicable uses would include, but not be limited to, the following:

- \* Protective lining for bulk materials handling equipment to provide abrasion resistance, thermal protection and enhanced slip to aid material transfer.
- \* Sanitary coatings for lining meat, poultry and other food processing facilities.
- \* Lining of steel, masonry or wood tanks, silos, pipes and flumes.
- \* Application to geotextiles to form ponds, contain spills, prevent escape of effluents and prevent loss of water or petroleum products.
- \* Provide protection for rigid urethane foam insulation.
- \* Coat expanded polystyrene board to provide both physical and chemical protection.
- \* Can be applied over open-cell flexible foam to seal the surface and provide a good wear surface.
- \* Provides a tough, abrasion, chemical and corrosion resistant liner for truck beds and under carriages.
- \* Suitable for automobile and pedestrian traffic deck surfacing and waterproofing.
- \* May be used to repair or replace existing containment liners.
- \* Provides a stable surface for decorative items such as artificial landscapes, stage props, art objects, etc.
- \* Production of plastic articles by spraying into open (one sided) molds.
- \* Lining of cargo holds on ships to provide abrasion resistance or for sanitation and ease of cleaning.
- \* Lining of rail freight cars to provide abrasion resistance, improve sanitation and enhanced slip for easier more complete discharge of loads.
- \* Encapsulation of asbestos and other environmentally undesirable materials.
  
- \* Abrasion resistance surfaces for snow plows, salt and sand spreaders.
- \* Sealing and corrosion protection of sewer manholes.

- \* Lining of hot asphalt dump trucks.
- \* Sealing of metal building seams and fasteners.
- \* Protection of polyurethane foam roofing from damage by hail, birds, traffic and ice build up.

## **PHYSICAL PROPERTIES**

### **TENSILE PROPERTIES:**

(ASTM D-412)	Strength:	3600 +/- 200 psi minimum
	Elongation:	340 % minimum
	Permanent Set:	20 % maximum
	Flexural Modulus:	45 (K) psi
	Density PCF:	66
	Gardener Impact	310 in/lbs

### **TEAR RESISTANCE:**

(ASTM D-624) Die C                      700 +/- 50 pli

### **WEATHERABILITY:**

(ASTM G-53)                      No cracking, checking or loss of integrity after 2000 hours.

**SERVICE TEMPERATURE:**      -40 to 350<sup>o</sup> F.

### **ABRASION RESISTANCE:**

Taber abrasor, 1 Kg load, 1000 cycles H-18 wheel: 100 mg loss.

<b>HARDNESS:</b>	Shore A	95
(ASTM D-2240)	Shore D	57 +/- 2

### **COLD TEMPERATURE FLEXIBILITY:**

(ASTM D-3111)                      Pass 0.25 inch mandril @ -40<sup>o</sup> F.

### **CHEMICAL RESISTANCE:**

See Corolon Polyurea & Polyurea Hybrid Chemical Resistance Chart.

### **WATER VAPOR PERMEABILITY:**

ASTM E-96 procedure BW.

100% R.H. differences @ 73 <sup>o</sup> F	0.02 perm inches
30 mil film	

### **WATER ABSORPTION:**

ASTM D-471

24 hours @ room temperature	1.5 %
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## LIQUID COMPONENT PROPERTIES

**COVERAGE:** 1600 mil square feet per gallon.

**SOLIDS:** "A" 100% by weight and volume.  
"B" 100% by weight and volume.

**VOLATILE ORGANIC COMPOUNDS:** None.

**FLASH POINT:** Above 200° F.

**VISCOSITY:** "A" component 700-900 cps @ 77° F.  
"B" component 800-1000 cps @ 77° F.

**SHELF LIFE:** "A" One year @ 50-90° F.  
"B " Two years @ 20-100° F.

**THINNER:** Not recommended.

**CURE TIME:** Gel in 3-5 seconds. Cure to handle in 30-40 seconds. Develops chemical resistance and physical properties in 8 hours. Recoatable for up to 8 hours.

**MIX RATIO:** 1 to 1 by volume.

**CLEAN UP SOLVENT:**  
Toluene, Xylene, MEK. For reduced fire hazard use glycol ethers environmentally acceptable chlorinated solvents.

## APPLICATION

**EQUIPMENT:** Hot airless plural component equipment capable of producing a minimum of 2,000 psi and heat to 140° F. Higher pressures to 2500 psi may provide better mixing with enhanced physical properties for the end product. Contact Corolon Inc. for specific spray gun recommendations. Self-purging impingement mixing spray guns are required.

**PRIMER:** Self-priming on most surfaces. Corolon epoxy primer is recommended where enhanced adhesion is needed. Please contact Corolon Inc. for specific recommendations.

**PRECAUTIONS:** See Material Safety Data Sheet for complete safety data. Protect from exposure to moisture. Water will cause "A" component (ISO) to generate carbon dioxide with resulting high pressure in closed containers.

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