PipeArmor™ 150SW

CHEMICAL OR ABRASION ANSI/NSF 61 USE PIPELINE

Quest inspar

Pipeline Life Extension Specialists

PipeArmor™ 150SW is an exothermic, rapid curing, elastomeric polyurea which is designed for use as a fully self supporting structural lining for pressurized process piping and also is available with full ANSI/NSF 61 Drinking Water Standard compliance.

PipeArmor 150SW can be used as a liner for protection against abrasion, corrosion and pressure containment in pipe all systems. With high-strength, high abrasion and chemical resistant properties, **PipeArmor 150SW** is formulated for robotic or hand application to produce a liner from 20 mil to >500 mil thickness in a single pass. The liner's self supporting characteristics and tenacious bond to existing profiles in pipe substrates will significantly extend the life of new piping systems and to restore and protect existing pipelines against further internal corrosion and erosion.

PipeArmor 150SW provides a cost effective flexible, tough, resilient, high strength monolithic pressure containment membrane with high chemical resistance, and full protection for fluid transmission.

PipeArmor 150SW is only available from Quest Inspar.

FEATURES

- 100% solids
- Zero VOCs, CFC's or endocrine disruptors
- Won't chalk, crack, fade or leach
- Large perforation and crack spanning capabilities
- Temperature flexibility (-40 F (-40 C) to 175 F (79.4 C)
- Pressure containment
- ANSI / NSF 61 Drinking Water Standard compliant
- Seamless monolithic application; robotically applied at from 20 mil to >500 mil in a single pass application

BEST USES

- Cooling water piping
- Water supply transmission/distribution
- Chemical piping
- Raw water piping
- Oily water piping
- Chemical containment

Chemical Properties*	Test	Isocyanate	Resin
Specific Gravity (grams/cc)	ASTM D-792	1.17-1.22	1.04-1.06
Viscosity		400-600	700-900
Solids by Volume/Weight		100%	100%
Volatile Organic Compounds		0 lbs/gal	0 lbs/gal
Mix Ratio, parts per volume		1	1
Mix Ratio, parts per weight		100	90
Gel Time, seconds		5-8	
Tack Free, seconds		15-20	
Dry to Touch, mins (75ºF)		5-7	
Recoat, max		4 hrs	
95% Cure Time (to normal use at 75ºF)		<12 hrs	
Return to Immersion Service (75ºF)		<72 hrs	
Theoretical Coverage		1600 sq ft @ 1 mil	
Odor		mild	amine
Freezing Point		40ºF	n/a
Cured Color		clear/white	blue/gray
Shelf Life – Unopened Containers		12 months	12 months

* Properties were tested at 77°F (24°C) unless otherwise stated.

Typical Physical Properties (72 hrs at 75ºF)	Test	Results
Hardness (Shore D)	ASTM D-2240	70
Tensile Strength (psi)**	ASTM D-412/638	4150-4300
Tear Resistance (pli)** Die C	ASTM D-624	700-750
Elongation (%)**	ASTM D-412/638	38-48
Flexural Strength (psi)	ASTM D-790	>250,000
Impact Resistance	ASTM G-14	>115 in-lbs
Adhesion, Steel (pull off, psi)	ASTM D-4541	>1,600
Compressive Strength (psi)	ASTM D-695	1,250
Taber Abrasion Resistance (mg of loss/1000 cycles) CS17 Wheel; 1000 grams weight	ASTM D-4060	20-45
Mandrel Bend, 180º, 3 inch mandrel	ASTM D-522	Pass
Water Absorption (%)	ASTM D-570	≤1.6
Dielectric Strength (volts/mil)	ASTM D-149	300
Dielectric Constant (MHz)	ASTM D-150	5.4
Dissipation Factor (MHz)	ASTM D-150	0.058
Cathodic Disbondment	ASTM G-95	<12 mm

** Properties were checked of PipeArmor 150SW, 1/8" (125 mils), (3.18 mm) thick stock.

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