



TECHNICAL DATA

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URA-SHIELD 2000 STRUCTURAL POLYUREA for JACKETED TANK APPLICATIONS

Product Description

A 100% solids, fast set, polyurea developed for high performance structural applications. It's balance of stiffness and impact resistance makes it ideal for jacketed steel tank applications.

Features

- Zero VOC
- Fast curing for increased productivity.
- Resists creepage and penetration.
- Excellent impact resistance over a wide range of temperatures
- Low water absorption.
- Good acid resistance.
- Unlimited film build in multiple passes.
- Resistant to heat warpage and cold temperature cracking
- Developed for UL testing and listing per UL Standard 1746, Part III, Jacketed Tanks.

Recommended Uses

- Underground Storage Tanks
- Manholes
- Concrete Sewer Pipes

Typical Properties

Solids by Volume	99% ±1
Volatile Organic Compounds	0.0 lb/gal (0.0 g/l)
Theoretical Coverage	1604 ft ² / gal@ 1 mil (3.8 m ² /gal @ 1 mm)
Recommend DFT Applied in multiple passes	50 – 250 mils (1.3 – 6.4 mm)
Number of Coats	1
Mix Ratio (by volume)	1"A" : 1"B"
Flash Point (PMCC)	275°F (135°C)
Shelf Life @ 60-90°F (16-32°C)	9 months
Color	Black

Specification Data

Elongation: ASTM D 412	25%
Tensile Strength: ASTM D 412	3800 psi
Hardness: ASTM D 2240	70 Shore "D"
Modulus: ASTM D 790	65,000 psi ± 5000
Shrinkage: ASTM D 955	0.007 in/in
Impact: ASTM D 256	14.5 ft/lb
Tear Resistance: ASTM D 1938	600 psi
Low Temperature Flexibility: ASTM D 1737	Passes ½ " mandrel @ -20°F
Dry Temperature Resistance: Continuous Intermittent	200°F 250°F

Ordering Information

Packaging:	10 gal & 110 gal kits
Shipping Weight:	11 lb/gal (5.0 kg/gal)

APPLICATION INFORMATION

URA-SHIELD 2000

Surface Preparation

Remove all oil, grease or other contaminants from the surface to be coated in accordance with SSPC-SP 1.

Steel: Abrasive blast to a Near White Blast in accordance with SSPC-SP 10 and obtain a 3-4 mil (75-100µ) angular anchor pattern.

Other: Contact ITW Devcon Futura Coatings for specific recommendations.

Mixing

Power mix "B" component thoroughly for 15 to 20 minutes to a uniform consistency, "A" component does not require mixing.

DO NOT BATCH MIX.

Thinning

DO NOT THIN

Pot Life

Material Temperature	Time
60°F (15°C)	< 15 seconds
75°F (24°C)	< 15 seconds
90°F (32°C)	< 15 seconds

Application Conditions

	Normal	Minimum	Maximum
Material*	135-150°F (57-65°C)	135°F (57°C)	170°F (77°C)
Surface	75-90°F (24-32°C)	35°F (2°C)	110°F (43°C)
Ambient	75-90°F (24-32°C)	35°F (2°C)	110°F (43°C)
Humidity	30-50%	0%	85%

*Materials must be preheated to 70-90°F (21-32°C) prior to use.
Surface temperature must be 5°F (3°C) above the dew point.

Application Equipment

Heated Plural Component Airless (only)

Applicator training is required and spray equipment must be approved by ITW Devcon Futura Coatings Technical Service.

- 1:1 ratio capable of producing a minimum delivery rate of 1¼ gallons per minute at a tip pressure of 2500-3000 psi.
- Proportioner heaters and heated hose capable of maintaining material temperatures of 135-150°F (57-65°C) at the spray tip.
- Drum heaters capable of maintaining material temperatures of 75-90°F (24-32°C) during application
- 2:1 ratio transfer pumps minimum.
- Contact ITW Devcon Futura Coatings for specific information.

Cure Time

These times are based on a 30-50% RH. Excessive film thickness, cooler temperatures or inadequate ventilation will require longer cure times and could result in premature failure.

	<u>Surface Temperature</u>		
	50-69°F (10-21°C)	70-89°F (21-32°C)	90-110°F (32-43°C)
Surface dry	< 15 seconds	< 15 seconds	< 15 seconds
Hard Film	< 1 minute	< 1 minute	< 1 minute
Recoat (min)	1 minute	1 minute	1 minute
Recoat (max)	4 hours	4 hours	4 hours
Optimal cure	4 days	4 days	2 days

- If the maximum recoat time has been exceeded by more than 24 hours consult ITW Devcon Futura Coatings for recommended recoat procedures.

Clean Up

Consult ITW Devcon Futura Coatings "Plural Component Equipment Guide" for specific information.

Safety Information

- Read the Material Safety Data Sheet (MSDS) and container labels for detailed health and safety information.
- Do not apply material in enclosed areas without adequate air exchange and ventilation.
- All application personnel must use fresh air respirators or fresh air hoods.
- Wear protective clothing, gloves and eye protection.
- Breathing fumes or contact with the skin may cause severe allergic reactions.
- **This product is intended for industrial use by properly trained professional applicators only.**

Storage Conditions

- Urethane coatings need to be protected from moisture contamination. Store drums and pails in a dry location at 60-90°F (16-32°C).
- Drums **must** be kept sealed at all times with a positive feed dry air, nitrogen blanket or desiccant cartridge system.
- Materials **must** be kept above 50°F (10°C).

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