



TECHNICAL DATA

FUTURA-THANE 5041 POLYUREA ELASTOMER

Product Description

A 100% solids, fast set, two component high performance polyurea elastomer. It has high tolerance for damp, cold substrates and provides a durable monolithic membrane under adverse environmental application conditions.

Features

- Extremely rapid cure.
- 100% Solids
- Zero VOC.
- Unlimited film build.
- Excellent water and chemical resistance.
- Excellent resistance to hydrogen sulfide.
- Moisture tolerant.

Recommended Uses

As a primary or secondary containment lining for concrete, steel or geotextile applications exposed to water, wastewater, fuels, and a wide range of chemicals. Also used for wastewater treatment tankage, manhole and concrete sewer pipe linings because of its excellent resistance to hydrogen sulfide.

Primers

Steel: FUTURA-BOND 316, FUTURA-BOND 613, and FUTURA-BOND 610

Concrete: FUTURA-BOND 316, FUTURA-BOND 613

Other: Contact Futura for a recommendation.

Typical Properties

Solids by Volume	100%
Solids by Weight	100%
Volatile Organic Compounds	0.0 lb/gal (0.0 g/l)
Theoretical Coverage	1604 ft ² @ 1 mil (3.8 m ² @ 1 mm)
Recommend DFT	40 – 400 mils (1 – 10 mm)
Number of Coats	1 or more
Mix Ratio (by volume)	1"A" : 1"B"
Flash Point (PMCC)	>350°F (177°C)
Shelf Life @ 60-90°F (16-32°C)	9 months
Color	Standard Tan

Specification Data

Elongation – ASTM D 412	265%	
Tensile Strength ASTM D 412	2500 psi ± 200	
Abrasion Resistance ASTM C 501	H-10	74 mg loss
Hardness – ASTM D 2240	50 Shore "D" 90 Shore "A"	
Low Temperature Flexibility	-20°F (-29°C) Passes 1" mandrel bend	
Tear Resistance ASTM D 1938	430 pli ± 50	

Ordering Information

Packaging:	10 gal & 110 gal kits
Shipping Weight:	10 lb/gal (4.5 kg/gal)
Freight Classification:	Coating Solution Non-Flammable Liquid UN 1139

APPLICATION INFORMATION

FUTURA-THANE 5041

Surface Preparation

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

Steel: Apply over clean, dry, properly applied FUTURA-BOND 316 or other recommended primer.

Concrete: Apply over clean, dry, properly applied FUTURA-BOND 316 or other recommended primer. Note: Rough concrete may require surfacing with FUTURA-BOND 320 GEL prior to the application of the FUTURA-BOND 316.

Geotextile: Apply on the "sized" side of recommended fabrics only.

Other: Contact Futura for specific surface preparation and primer recommendations.

Mixing

Power mix each component separately to a uniform consistency.

Extreme care must be taken to use separate mixing devices to prevent cross contamination of materials.

Thinning

DO NOT THIN!

Pot Life

Material Temperature	Time
60°F (15°C)	<10 seconds
75°F (24°C)	<10 seconds
90°F (32°C)	<10 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)	90°F (32°C)
Ambient	75-90°F (24-32°C)	20°F (-6°C)	120°F (49°C)
Humidity	30-50%	0%	85%

*Materials must be preheated to 70-90°F (21-32°C) prior to use.

Application Equipment

Heated Plural Component Airless (only)

- 1:1 ratio capable of producing a minimum delivery rate of 1 ¼ gallons per minute at a tip pressure of 2600-3000 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 feed pumps minimum.
- Contact Futura Coatings for specific information.

Clean Up

Consult Futura Coating's "Plural Component Equipment Guide" 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.

	Surface Temperature		
	50-60°F (10-15°C)	70-80°F (21-27°C)	90-100°F (32-38°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
Full cure	4 days	4 days	2 days

- If the maximum recoat time is surpassed by less than 24 hours, wipe with MEK and recoat within 10 minutes.
- If the maximum recoat time has been exceeded by more than 24 hours consult Futura Coatings for recommended recoat procedures.

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).

FUTURA COATINGS, INC., 9200 LATTY AVENUE, HAZELWOOD (ST. LOUIS), MO 63042, (314) 521-4100 FAX: (314) 521-7255

As Futura Coatings, Inc. has no control over the use to which others may put the material, it does not claim or warrant that in your particular circumstance the results you will obtain from the use of the product will be the same as those depicted in this communication, or that you will find the information or recommendations complete or accurate. Futura Coatings accepts no liability, in negligence or otherwise, for any damage resulting from your reliance on the information or recommendations in this communication. You are responsible to determine if the material is suitable for your particular purpose. We do not assume liability or responsibility of the product relative to coverage, performance or injury resulting from its use. © FUTURA COATINGS, INC. 2000