



TECHNICAL DATA

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FUTURA-THANE[®] 5040 POLYUREA/POLYURETHANE ELASTOMER

Product Description

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

Features

- 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, or steel applications exposed to 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 610 HS
Concrete: FUTURA-BOND 415
Other: Contact ITW Futura Coatings for recommendations.

Typical Properties

Solids by Volume	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)	>250°F (121°C)
Shelf Life @ 60-90°F (16-32°C)	9 months
Color	Standard Black

Specification Data

Elongation – ASTM D 412	210%
Tensile Strength ASTM D 412	3800 psi ± 300
Hardness – ASTM D 2240	87 Shore “A”
Low Temperature Flexibility	-20°F (-29°C) Passes 1” mandrel bend
Tear Resistance ASTM D 1938	465 pli ± 25

Ordering Information

Packaging:	10 gal & 110 gal kits
Shipping Weight:	10 lb/gal (4.5 kg/gal)

APPLICATION INFORMATION FUTURA-THANE 5040

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.

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

Mixing

Power mix "B" component 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)	<20 seconds
75°F (24°C)	<20 seconds
90°F (32°C)	<20 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. 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 Futura Coatings Technical Service.

- 1:1 ratio capable of producing a minimum delivery rate of 1 ¼ 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 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	< 20 seconds	< 20 seconds	< 20 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 ITW Futura Coatings for recommended recoat procedures.

Clean Up

Consult ITW 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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