



TECHNICAL DATA

Revised Date: 01/2008
Replaces Date: 01/2006

FUTURA-THANE[®] 5360 STRUCTURAL POLYUREA

Product Description

A 100% solids, fast set, structural polyurea. Its strong structural characteristics allow it to be applied over weak surfaces where other coatings may not be applied. Its formulation allows for applications at low temperatures, high humidity and to certain damp surfaces. Applied using heated plural component spray equipment.

Features

- Low VOC
- Fast curing for increased productivity.
- High modulus.
- High impact resistance
- Low water absorption.
- Good acid resistance.
- Good abrasion resistance
- Unlimited film build in multiple passes.

Recommended Uses

As a lining on concrete or brick manholes and sewer pipes where excellent resistance to H₂S, sewage, bacterial growth and a wide range of other chemicals is needed. Also suitable as a self-contained liner for wood and other surfaces where containment and abrasion resistance is necessary.

Primers

Concrete / Masonry / Wood: None required
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 / gal @ 1 mil (3.8 m ² /gal @ 1 mm)
Recommend DFT <small>Applied in multiple passes</small>	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	Light Brown

Specification Data

Modulus – ASTM D 790	35,000 psi ± 5000
Hardness – ASTM D 2240	60 Shore "D"
Water Absorption – ASTM D 471 <small>3 days at 75°F (24°C)</small>	1.0%
Shrinkage – ASTM D 955	0.007 in/in
Heat Sag – ASTM D 3769 <small>1 hr/250°F, inch</small>	0/0
Impact – ASTM D 4533 <small>Unnotched</small>	>25 ft/lb (>34 n/m)
Heat Deflection Temperature <small>ASTM D 648</small>	150°F (66°C)

Ordering Information

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

APPLICATION INFORMATION

FUTURA-THANE 5360

Surface Preparation

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

Concrete / Masonry: Brush blast to remove laitance and open any bugholes.

Other: Contact ITW 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 Futura Coatings Technical Service.

- 1:1 ratio capable of producing a minimum delivery rate of 1½ 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	< 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 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).

ITW FUTURA COATINGS, 1685 GALT INDUSTRIAL BLVD., ST LOUIS, MO, (314) 733-1110

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact ITW Futura Coatings to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to ITW Futura quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY ITW FUTURA, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.