



TECHNICAL DATA

Revised Date: 02/2008
Replaces Date: 01/2008

GEOTHANE[®] 5020 MODIFIED POLYURETHANE ELASTOMER

Product Description

A 100% solids, fast-set, two component modified polyurethane elastomer. It forms a tough, monolithic, seamless, highly elastomeric membrane with excellent water and chemical resistance. Applied using heated plural component spray equipment.

Features

- Fast curing for increased productivity.
- 200% elongation allows bridging of normal shrinkage cracks in concrete.
- Unlimited film build in one multi-pass coat.
- Good resistance to UV degradation.
- Can be used over Geotextile fabric.

Recommended Uses

As a primary or secondary containment lining on concrete, steel or geotextile fabric surfaces to contain leaks and spills of wastewater, fuels, and a variety of chemicals. It is excellent as a landfill cap or environmental cover to control leaching and wind or weather erosion. It is also excellent as a repair or upgrade material for existing pond liners and torn or failed seams in plastic sheet linings.

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	20 – 150 mils (0.5 – 3.8 mm)
Number of Coats	1 or 2
Mix Ratio (by volume)	1"A" : 1"B"
Flash Point (PMCC)	>200°F (93°C)
Shelf Life @ 60-90°F (16-32°C)	9 months
Color	Black & Tan

Specification Data

Elongation – ASTM D 412	200% ± 10%
Abrasion Resistance ASTM 4060 CS17 – 1000 grams / 1000 cycles	8 mg loss ± 5%
Tensile Strength – ASTM D 412	1300 psi ± 10%
Tear Resistance ASTM D 624 Die "C"	160 pli ± 10%
Hardness – ASTM D 2240	80 Shore "A" ± 5%
Permeability – ASTM E 96	0.05 perms

Ordering Information

Packaging:	10 gal & 110 gal kits
Shipping Weight:	10.6 lb/gal (4.9 kg/gal)

APPLICATION INFORMATION GEOthane 5020

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 415 HS or other recommended primer.

Concrete: Apply over clean, dry, properly applied FUTURA-BOND 415 or other recommended primer. Note: Rough concrete may require surfacing with FUTURA-BOND 320 Gel prior to the application of the FUTURA-BOND 415.

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

Plastic Sheet Liners / FRP / Other: Contact ITW Futura Coatings for specific surface preparation and primer recommendations.

Mixing

Power mix the "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 – 30 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)	45°F (7°C)	110°F (43°C)
Ambient	75-90°F (24-32°C)	45°F (7°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 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 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 minutes	9 -10 minutes	5 minutes
Hard Film	40 minutes	20 minutes	15 minutes
Recoat (min)	30 minutes	15 minutes	10 minutes
Recoat (max)	20 hours	12 hours	5 hours
Full cure	4 days	50 hours	36 hours

- If the material has exceeded its maximum recoat time 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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