



TECHNICAL DATA

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GEOTHANE[®] 520 MODIFIED URETHANE ELASTOMER

Product Description

A 100% solids, standard cure, two component modified polyurethane elastomer. It forms a tough, monolithic, seamless, highly elastic membrane with excellent water and chemical resistance. Does not require plural component spray equipment.

Features

- 300% elongation allows bridging of normal shrinkage cracks in concrete.
- High Build – Up to 30 mils per coat.
- Spray and/or roller application.
- Good resistance to UV degradation.

Recommended Uses

As a Primary or Secondary Containment lining on concrete or steel surfaces to contain leaks and spills of wastewater, fuels, and a wide range of chemicals. It is excellent as a landfill cap or environmental cover to control leaching and wind erosion. It is also excellent as a repair material for existing pond liners and torn or failed seams in plastic sheet linings and for repairs to GEOTHANE 5020.

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 (Do not exceed 30 mils per coat)	20 – 100 mils (0.5 – 2.5 mm)
Number of Coats	Normally 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	Standard Black & Tan

Specification Data

Elongation – ASTM D 412	300%
Tensile Strength – ASTM D 412	900 psi (6.2 mPa)
Abrasion Resistance ASTM D 4060 CS 17 / 1000 g / 1000 cycles	23 mg loss
Hardness – ASTM D 2240	65 Shore "A"
Flexibility – ASTM D 1737	-55°F (-48°C) Passes ½" mandrel bend
Tear Resistance ASTM D 624 Die "C"	240 – 370 pli
Permeability – ASTM E 96 Procedure B – 50 mils dft	0.12 perms

Ordering Information

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

APPLICATION INFORMATION GEOTHANE 520

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 610 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.

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

Mixing

Power mix Part B separately, then combine 1 "A" to 1 "B" by volume and power mix to a smooth consistency.

Thinning

DO NOT THIN!

Pot Life

Material Temperature	Time
50-60°F (10-15°C)	45 – 60 minutes
70-80°F (21-27°C)	40 – 50 minutes
90-100°F (32-38°C)	25 – 35 minutes

Application Conditions

	Normal	Minimum	Maximum
Material	75-90°F (24-32°C)	65°F (18°C)	150°F (65°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%

Surface temperature must be 5°F (3°C) above the dew point.

Application Equipment

Airless:

Pump Ratio	56:1 min	Tip Size	0.027-0.035"
Material Hose*	3/8" ID min 100' max	Tip Pressure psi	5000 +

* Use of insulated hose will help prevent overheating in the sun.

Roller: Medium or short nap with phenolic core

Clean Up

Use MEK or a 1:1 blend of MEK and Toluol.

Cure Time

These times are based on a 30-50% RH. High 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	7 hours	3 hours	2 hours
Hard Film	30 hours	16 hours	9 hours
Recoat (min)	10 hours	4 hours	3 hours
Recoat (max)	4 days	3 days	30 hours
Full cure	10 days	6 days	4 days

- 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, contact ITW Devcon Coatings for recommended recoat procedures.
- **CAUTION: Do not exceed 30 mils wet film thickness per coat as material will not cure properly. Subsequent coats should be applied after the minimum recoat time has been reached and prior to the maximum recoat window being attained.**

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

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