



TECHNICAL DATA

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STYROTHANE 5321 AROMATIC URETHANE

Product Description

Fast cure, 100% solids, aromatic polyurethane coating. A "hard-coat" specifically designed to provide high impact damage resistance for expanded polystyrene (EPS), Styrofoam and PUF. Must be applied using a heated plural component airless pump.

Features

- Fast cure and cycle times for increased production rates
- High gloss visual appeal for product enhancement
- Durability extends substrate life
- Impact Resistant Protection
- Protection against chemical attacks (gasoline, oil, solvents, etc.)
- Excellent waterproofing characteristics
- Resistant to freeze/thaw expansion contractions and thermal shock cycles.

Recommended Uses

- High impact damage protection for Expanded Polystyrenes (EPS) and Styrofoam.
- Protection and enhanced aesthetic appeal for urethane foam and phenolic foam boardstock.
- Protection and enhanced aesthetic appeal for wood surfaces.

Typical Properties

Solids by Volume (ASTM D-1353)	100%
Volatile Organic Compounds	0 lbs./ gal (0 gm/L)
Theoretical Coverage	1604 mil. ft ² /gal (3.8 m ² /gal @ 1.0mm)
Recommend DFT	30-100 mils
Number of coats Do not exceed 30 mils dft per coat	One or more
Mix Ratio (by volume)	1 "A" : 1 "B"
Flash Point – PMCC	>300°F (149°C)
Viscosity LV4/60 RPM	
	A Component 900 B Component 700
Shelf Life @ 65-80°F (18-27°C)	12 Months
Color	Neutral

Specification Data

Tensile Strength ASTM D 412	2700 psi (18.5 mpa)
Elongation ASTM D413	30%
Hardness ASTM D2240	71 Shore D
Flexural Modulus ASTM D790	60,000±5000
Density	65 lbs./ft ² (1040 kg/m ²)

Ordering Information

Packaging	10 gal & 110 gal kits
Shipping Weight	11 lb/gal (5 kg/gal)

APPLICATION INFORMATION STYROTHANE 5321

Surface Preparation

Remove all oil, grease or other contaminants from the surface to be coated

Mixing

Power mix "B" component a uniform consistency, "A" component does not require mixing.
DO NOT BATCH MIX.

Thinning

DO NOT THIN!

Pot Life

Material Temperature	Time
70°F (21°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)	40°F (4°C)	120°F (49°C)
Ambient	75-90°F (24-32°C)	40°F (4°C)	120°F (49°C)
Humidity	30-50%	0%	85%

*Materials must be preheated to 75-90°F (24-32°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.

Clean Up

Consult ITW Futura Coatings "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.

Styrothane 5321 – Neutral

	<u>Surface Temperature</u>		
	50-69°F (10-21°C)	70-89°F (21-32°C)	90-110°F (32-43°C)
Surface dry	5 minutes	2 minutes	1 minute
Hard Film	20 minutes	10 minutes	6 minutes
Recoat (min)	8 minutes	4 minutes	2 minutes
Recoat (max)	15 hours	8 hours	1 hour
Full cure	3 days	48 hours	30 hours

- If the maximum recoat time has been exceeded by more than 24 hours consult ITW 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).

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

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