



# TECHNICAL DATA

Revised Date: 4/2009  
Replaces Date: 011/2008

## STYROTHANE 30070 FAST CURE AROMATIC URETHANE

### Product Description

A 100% solids, two component, fast set polyurea that provides high impact resistance and excellent resistance to softening at elevated temperatures. It has a smooth finish and excellent humidity resistance during application. Applied using heated plural component spray equipment.

### Features

- High impact resistance
- High heat softening temperature
- High humidity resistance during application
- Provides smooth surface over EPS foam compared to conventional hardcoats
- 1:1 mixing ratio
- Fast curing for increased productivity
- No VOC's

### Recommended Uses

As a "hardcoat" designed for the protection of computer-cut or hand-carved EPS or other low density foams.

### Typical Properties

<b>Solids by Volume</b> (ASTM D-1353)	100%
<b>Volatile Organic Compounds</b>	0.0 lbs/gal
<b>Theoretical Coverage</b>	1604 ft <sup>2</sup> / gallon @ 1 mil
<b>Recommend DFT</b>	30-100 mils
<b>Flash Point - PMCC</b>	A: 226°F B: 275°F
<b>Mix Ratio</b> (by volume)	1 "A" : 1 "B"
<b>Viscosity</b> - LV4/60RPM	
A Component	264 cps
B Component	620 cps
<b>Gloss</b> – ASTM 523	90
<b>Shelf Life</b> @ 65-80°F (18-27°C)	12 months
<b>Color</b>	Gray

### Specification Data

<b>Elongation</b> – ASTM D 412	310%
<b>Tensile Strength</b> – ASTM D 412	4265 psi
<b>Flexural Strength</b> – ASTM D790	1359 psi
<b>Flexural Modulus</b> –ASTM D790	27,325 psi
<b>Tear Resistance</b> – ASTM D 624 Die "C"	530 pli
<b>Split Tear</b> – ASTM D470	139 pli
<b>Mandrel Bend</b> – ASTM D522	¼" @ 73°, 42° & -32°F
<b>Taber Abrasion</b> – ASTM D 1630 CS17 H10	14 mg loss 24 mg loss
<b>Hardness</b> – ASTM D 2240,	93 Shore A 58 Shore D
<b>Impact</b> – ASTM G14	165in/lbs
<b>Adhesion</b> – ASTM D4541	235 psi (failure at EPS)
<b>Density</b> – ASTM D1622	65-67 pcf
<b>Water Absorption</b> , ASTM D 471 3 days at 75°F	1.2%

### Ordering Information

<b>Packaging:</b>	10 gal & 110 gal kits
<b>Shipping Weight:</b>	10 lbs/gal

# APPLICATION INFORMATION

## STYROTHANE 30070

### Surface Preparation

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

### Mixing

Power mix "B" component to a smooth uniform consistency, "A" component does not require mixing.

**DO NOT BATCH MIX.**

### Thinning

**DO NOT THIN!**

### Pot Life

Material Temperature	Time
75°F (24°C)	< 15 seconds

### Application Conditions

	Normal	Minimum	Maximum
<b>Material*</b>	135-150°F (57-65°C)	135°F (57°C)	170°F (77°C)
<b>Surface</b>	75-90°F (24-32°C)	45°F (7°C)	110°F (43°C)
<b>Ambient</b>	75-90°F (24-32°C)	45°F (7°C)	110°F (43°C)
<b>Humidity</b>	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.**

### 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.

#### Surface Temperature

75°F

<b>Dry to touch</b>	< 25 seconds
<b>Dry hard</b>	3 minutes
<b>Dry through</b>	15 minutes
<b>Recoat (max)</b>	8 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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