# Barnes

## TECHNICAL DATA SHEET

#### **Product Name**

# ROTOTHANE Fast Cure Polyurethane Resin

#### **Product Description**

Two-component rigid urethane casting compound that cures at room temperature and features:

- Excellent Flow
- · General Shore 65D Hardness range
- · Rapid setting
- · Good rotational casting properties
- · Compatible with a wide range of fillers
- Excellent detail reproduction because of its low viscosity
- Easy 1:1 mix ratio by volume

#### **Typical Applications**

Rotothane is commonly used for hollow rotational cast parts including such as model kits, collectibles and movie props. It is also suitable for pattern and foundry tooling, architectural models, mirror and picture frames, masters and prototypes and most other decorative components.

**Physical Properties** 

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Hardness		Shore D	65±2		
Specific Gravity, cured		[g/cc]	1.03		
Colour			White		
Ultimate Tensile		[psi] mPa	[5395] 37.2		
Flexural Strength		[psi] mPa	[5728] 39.5		
Flexural Modulus		[psi] mPa	[142 940] 985		
Elongation		[%]	7.9		
Heat Deflection		°C	71		
Shrinkage, linear	Unfilled	[in/in]	0.0169		

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**Handling Properties** 

Transaming i reportion			
Mix Ratio	By Weight	Part A	100 pbw
		Part B	90 pbw
	By Volume	Part A	100 pbv
		Part B	100 pbv
Viscosity	cps @ 25°C	Mixed	120
Work Time	100g mass @ 25°C		2 minutes
Gel Time	100g mass @ 25°C		2.5-3 minutes
Demould Time	@ 25°C		15-30 minutes (note 1)
Cure Schedule	7 days ambient; or post cure of 16 hours @ 70°C is recommended to promote maximum physical properties		

#### **Storage**

Store at room temperature in a dry area.

#### Note 1

Rotothane generally cures to a demouldable state in about 15-30 minutes, however, thin sections or certain part configurations may require more in-mould cure time. Sections that are less than 3mm may require more time before demould.

#### Note 2

Both components should be mixed before each use to ensure uniformity of the materials. Opened containers of material should be purged with F720 Dry Air Blanket prior to replacing lids or caps, to prevent moisture contamination from humid air.

#### **Issue Date**

17<sup>th</sup> June 2010

#### **Revision Number**

1

#### **Disclaimer**

The data presented in this leaflet are in accordance with the present state of our knowledge, and does not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. Recommendations for use do not constitute a warranty, either expressed or implied, of the fitness or suitability of the product for a particular purpose.

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