



# Freeman 1075

## Low Viscosity Prototyping Urethane

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### Description

FREEMAN's FMSC 1075 Prototyping Polyurethane is a low-cost, hand-mixable polyurethane that features a gel time of 5 to 6 minutes with a demold time of 15 minutes to 3 hours dependent on part thickness. Its extremely low viscosity will result in the reproduction of accurate, precisely-detailed parts.

Because of its quick demold times, multiple parts can be demolded in the same day, without the use of specialized dispensing equipment.

Suggested maximum cast thickness is 1/2".

### Physical Properties

Color (when mixed)	White
Mixed Viscosity (cps.)	200
Mix Ratio (R:H, by wt.)	100:50
(R:H, by vol.)	100:50
Gel Time (min. @ 72°F.)	5-6
Elongation (%) (D-412)	27
Hardness (Shore D) (@ 72°F)	72
Ultimate Tensile Strength (psi - ASTM D-638-64)	5,900
Ultimate Flexural Strength (psi - ASTM D-790)	8,600
Specific Gravity, Cured (g/cc)	1.13
Linear Shrinkage (in./in.) (D-2566)	0.005
CTE (in./ in./ °F)	60.0 x 10 <sup>-6</sup>
Volumetric Yield (cu. in./ lb.)	24.5
Maximum Cast Thickness (inches)	0.5

### Availability

<u>Cat. No.</u>	<u>Description</u>	<u>Net Wt. Lbs.</u>
055175	FMSC 1075 Gallon Unit (Resin & Hardener)	13.8

Note: Physical and mechanical properties of tooling plastics reported herein are typical after a full cure of seven (7) days at room temperature. Designated mix ratios must be adhered to for desired results.

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