



## Rapid Cast™

### Product Name

## RC-82D Polyurethane



### Description

RC-82D is a tough, impact resistant elastomer formulated for room temperature meter-mix dispensing systems and short mold cycle times. Excellent physical properties can be obtained with a room temperature cure without the utilization of mercury, MOCA, or TDI. RC-82D is particularly ideal for color-matching applications due to its neutral semi-transparent appearance. RC-82D gives you a slightly improved green strength over RC-81D.

### Physical Properties

<b>Mix Ratio</b>	Resin:Hardener (parts by weight)		<b>100:86</b>	
<b>Mix Ratio</b>	Resin:Hardener (parts by volume)		<b>100:100</b>	
<b>Viscosity</b> (cps@77°F)	Resin	100	<b>Gel Time</b>	50 ± 10 Seconds
	Hardener	650	<b>Demold Time</b>	12 ± 3 Minutes
	Mixed	375	<b>Color</b>	Translucent Cream
<b>Specific Gravity</b> (g/cc)	Resin	1.22		
	Hardener	1.05		

Cure 1 ▶ 24 hours at 77°F + 16 hours at 200°F  
Cure 2 ▶ 7 days at 77°F

### Cured Properties

	Method	Cure 1	Cure 2
<b>Hardness (shore D)</b>	ASTM D-2240	80 ± 5	80 ± 5
<b>Tensile Strength (psi)</b>	ASTM D-638	8,500	8,500
<b>Elongation at Break</b>	ASTM D-638	10%	13%
<b>Compression Strength (psi)</b>	ASTM D-695	9,400	10,000
<b>Compression Modulus (psi)</b>	ASTM D-695	N/A	N/A
<b>Ultimate Flex Strength (psi)</b>	ASTM D-790	10,800	11,400
<b>Flexural Modulus (psi)</b>	ASTM D-790	250,000	285,000
<b>Notched Izod (ft.lbs./in.)</b>	ASTM D-256	0.7	0.7
<b>Linear Shrink (in./in.)</b>	ASTM D-2566	0.003	0.003
<b>Heat Deflection Temp. (66psi)</b>	ASTM D-648	N/A	78°C / 172°F
<b>Heat Deflection Temp. (264psi)</b>	ASTM D-648	75°C / 167°F	70°C / 158°F
<b>Specific Gravity (g/cc)</b>		1.12	1.12

### Processing Notes

RC-82D can be used at room temperature. Meter-mix equipment is recommended due to the short working-life of the formulation. If pigment has been added to the to the hardener component, it may separate during storage.

**Agitate hardener before mixing to ensure that the formula is homogeneous.**

### Safety and Handling

DO NOT USE UNTIL MSDS HAVE BEEN READ AND UNDERSTOOD. Store containers in a dry location. Partially used containers should be blanketed with dry nitrogen to prevent moisture contamination. Moisture will react with the resin component, creating carbon dioxide gas and a possible pressure increase in the container. SPECIFICATION WRITERS: The above values are meant to represent typical properties only. Users are encouraged to qualify products in their own laboratories prior to specification publication. PURCHASER has the responsibility for determining any applicability of and compliance with federal, state, and local laws concerning labeling, use, and waste disposal, particularly in making consumer items. Innovative Polymers, Inc. makes no warranty, expressed or implied, for merchantability or fitness of use. The sole liability of Innovative Polymers, Inc. for any claim arising out of the manufacture, use, or sale of its products shall be the buyers purchase price.

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