



**Product Name**

## HP-90 Polyurethane



**Description**

HP-90 is a tough, abrasion resistant elastomer formulated for vacuum-assisted casting machines. Excellent physical properties can be obtained with a room temperature cure without the utilization of mercury, MOCA, or TDI.

**Physical Properties**

<b>Mix Ratio</b>	Resin:Hardener (parts by weight)		<b>100:50</b>
<b>Mix Ratio</b>	Resin:Hardener (parts by volume)		<b>100:50</b>
<b>Viscosity</b> (cps@77°F)	Resin	5500	<b>Gel Time</b>
	Hardener	75	<b>Demold Time*</b>
	Mixed	1500	<b>Color</b>
<b>Specific Gravity</b>	Resin	1.07	* Demold time is always mass dependant
(g/cc)	Hardener	1.07	

Cure 1 ► 7 days at 77°F  
Cure 2 ► N/A

**Cured Properties**

	Method	Cure 1	Cure 2
<b>Hardness (shore A)</b>	ASTM D-2240	80 ± 5	
<b>Tensile Strength (psi)</b>	ASTM D-638	1,500	
<b>Elongation at Break</b>	ASTM D-638	300%	
<b>Tear Strength (pli)</b>	ASTM D-624	300	
<b>Linear Shrink (in./in.)</b>	ASTM D-2566	0.003	
<b>Specific Gravity (g/cc)</b>		1.08	

**Processing Notes**

Preheating the tool to 150 °F will greatly enhance the de-mold time of this material. Additionally, preheating the material will reduce the viscosity, but will also reduce the gel time.

**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.

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