Innothane®

Product Name InnoClear™ OC-7086

Water Clear/Rigid

Description

OC-7086 is a water-clear, rigid polyurethane formulated for room temperature hand-batch or vacuum assisted casting methods. Excellent physical properties can be obtained with a room temperature cure without the utilization of mercury, MOCA, or TDI. The unique chemistry allows for excellent optical clarity as well as U.V. protection. Mixed material can be cast into either tin or platinum silicone molds.

Physical Properties

Mix Ratio	Resin:Hardener (parts by weight)		**100:57**	
Mix Ratio	Resin:Hardener (parts by volume)		**100:59**	
Viscosity	Resin	450	**Gel Time**	17.5 ± 2.5 Minutes
(cps@77˚F)	Hardener	1300	**Demold Time***	3 ± 1 Hours
	Mixed	650	**Color**	Water Clear
Specific Gravity	Resin	1.13	*** Demold time is always mass dependant**	
(g/cc)	Hardener	1.10		

Cured Properties

Cure 1►24 hours at 77˚F + 4 hours at 150˚F
Cure 2►7 days at 77˚F

RoHS

	Method	Cure 1	Cure 2
Hardness (shore D)	ASTM D-2240	80 ± 5	80 ± 5
Tensile Strength (psi)	ASTM D-638	10,500	8,000
Elongation at Break	ASTM D-638	8%	8%
Ultimate Flex Strength (psi)	ASTM D-790	16,000	14,000
Tensile Modulus (psi)	ASTM D-638	265,000	270,000
Flexural Modulus (psi)	ASTM D-790	345,000	350,000
Notched Izod (ft.lbs./in.)	ASTM D-256	1.1	0.5
Linear Shrink (in./in.)	ASTM D-2566	.001-.005	.001-.005
Heat Deflection Temp. (66psi)	ASTM D-648	95˚C / 203˚F	54˚C / 129˚F
Heat Deflection Temp. (264psi)	ASTM D-648	91˚C / 196˚F	N/A
Specific Gravity (g/cc)		1.10	1.10

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Processing Notes

For best results, de-air the material prior to casting, then pressurize to 60 psi until cured. However, if pressure cannot be used, this material has been designed for vacuum degas only. OC-7086 can be easily buffed when cured.

Kit Weights	Quart Kit	1 Gal. Kit	5 Gal. Kit	Drum Kit
	3.14 lbs.	**12.56 lbs.**	**62.8 lbs.**	**706.5 lbs.**

Safety and Handling

Although warming the hardener will reduce the viscosity effectively, it is not recommended that the material be stored in the oven at 100°F or above. This will cause the material to yellow.

DO NOT USE UNTIL MSDSs 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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