Innothane®

Product Name

InnoTuf® TP-4020

TP-4006 W/High Flex Modulus

Description

TP-4020 is a stiff polyurethane formulated for room temperature hand-batch systems or vacuum casting systems. Excellent physical properties can be obtained without the utilization of mercury, MOCA, or TDI.

Physical Properties

Mix Ratio	Resin:Hardener (parts by weight)		**100:46**	
Mix Ratio	Resin:Hardener (parts by volume)		**100:52**	
Viscosity	Resin	7800	**Gel Time**	10 ± 2 Minutes
(cps@100˚F)	Hardener	500	**Demold Time***	1 Hour at 150°F
	Mixed	1300	**Color**	Tan
Specific Gravity	Resin	1.40	***Demold time is always mass dependant**	
(g/cc)	Hardener	1.24		

Cured Properties

Cure 1►1 hour at 150°F + 24 hours at 77˚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	9,800	10,900
Elongation at Break	ASTM D-638	2%	2%
Ultimate Flex Strength (psi)	ASTM D-790	14,600	18,750
Flexural Modulus (psi)	ASTM D-790	400,000	650,000
Notched Izod (ft.lbs./in.)	ASTM D-256	0.4	0.3
Linear Shrink (in./in.)	ASTM D-2566	.001-.005	.001-.005
Heat Deflection Temp. (66psi)	ASTM D-648	172˚C / 342˚F	174˚C / 345°F
Specific Gravity (g/cc)		1.30	1.30

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Processing Notes

For best results, de-air the material prior to casting, then pressurize to 60 psi until cured. The resin contains a filler that will settle out of solution.

Agitate the hardener and resin before use to ensure that the formula is homogeneous.

Kit Weights	Quart Kits	1 Gal. Kit	5 Gal. Kit	Drum Kit
	2.92 lbs.	**11.68 lbs.**	**58.4 lbs.**	**657 lbs.**

Safety and Handling

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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