

RP 6461 R/H

300°F RIGID RAPID SET

HIGH FLEXURAL MODULUS PROTOTYPE SYSTEM FOR MACHINE DISPENSING

Ren® RP 6461 resin and hardener is a machine-dispensable polyurethane casting system for the rapid production of prototype and short-run parts.

The cured castings exhibit thermoplastic-like properties including ultra-high thermal resistance and good impact resistance. RP 6461 R/H has a heat deflection temperature of 309°F (154°C).

MIX RATIO

Resin to Hardener	By Weight:	By Volume:
	85 to 100	100 to 100

TYPICAL HANDLING PROPERTIES*

	<u>ASTM Method</u>	<u>Resin</u>	<u>Hardener</u>	<u>Mixed</u>
Color	Visual	Amber	Black	Black
Specific Gravity	D-1963	1.21	1.04	
Viscosity, cP	D-2393	30	2,150	
Gel Time, 150g, seconds	D-2471			45

NOTE: These physical properties are reported as typical test values obtained by our test laboratory. If assistance is needed in establishing product specifications, please consult with our Product Management Department.

RECOMMENDED CURE SCHEDULES

- 77°F (25°C) at 1 hour, plus
212°F (100°C) at 1 hour, plus
248°F (120°C) at 1 hour, plus
284°F (140°C) at 2 hours

TYPICAL CURED PROPERTIES*

	<u>ASTM Method</u>	<u>Cure 1 Value</u>
Density, lb./ft ³ (g/cm ³)	D-792	73 (1.18)
Cubic Inch per Pound		23.5
Hardness, Shore D	D-2240	81
Flexural Strength, 5% strain, psi	D-790	11,700
Flexural Modulus, psi	D-790	246,000
Ultimate Tensile Strength, psi	D-638	7,800
Tensile Modulus, psi	D-638	224,000
% Elongation	D-638	10
Tg by DMA, E", °F(°C)	D-4065	305 (151)
Deflection Temperature, °F(°C)	D-648	66 psi
		264 psi
Ultimate Compressive Strength, psi	D-695	309 (154)
Compressive Modulus, psi	D-695	286 (141)
Izod Impact, notched, ft-lb./in	D-256	32,000
Coefficient of Thermal Expansion	D-3386	238,000
		0.7
		60 x 10 ⁻⁶
		108 x 10 ⁻⁶

* Tested @ 77°F (25°C) unless otherwise noted.

SAFETY: Do not use or handle this product until the Material Safety Data Sheet has been read and understood.

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