

RP 6459 R/H

SHORE 80D CLEAR

MEDIUM FLEXURAL MODULUS PROTOTYPE SYSTEM FOR MACHINE DISPENSING

Ren® RP 6459 resin and hardener casting system is formulated to produce tough, clear parts. The RP 6459 R/H system can be processed and cured at room temperature using meter-mix equipment and low cost tooling.

RP 6459 R/H parts can usually be demolded in about four hours at room temperature. The extended pot life of three to four minutes facilitates filling of complex molds. Parts cure clear and exhibit outstanding durability and toughness to withstand handling and testing.

MIX RATIO

	Resin to Hardener	By Weight: 100 to 100	By Volume: 100 to 100
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TYPICAL HANDLING PROPERTIES*

	<u>ASTM Method</u>	<u>Resin</u>	<u>Hardener</u>	<u>Mixed</u>
Color	Visual	Clear	Clear	Clear
Specific Gravity	D-1963	1.08	1.03	
Viscosity, cP	D-2393	1,200	1,200	
Gel Time, 4 fl. oz, seconds	D-2471			180-240

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 SCHEDULE

1. 77°F (25°C) at 7 days
2. 77°F (25°C) at 24 hours, plus
176°F (80°C) at 14 hours

TYPICAL CURED PROPERTIES*

	<u>ASTM Method</u>	<u>Cure 1 Value</u>	<u>Cure 2 Value</u>
Density, lb./ft ³ (g/cm ³)	D-792	69 (1.11)	69 (1.11)
Cubic Inch per Pound		25.0	25.0
Hardness, Shore D	D-2240	79	80
Flexural Strength, at 5% strain, psi	D-790	6,600	7,100
Flexural Modulus, psi	D-790	168,000	169,000
Ultimate Tensile Strength, psi	D-638	5,400	5,600
Tensile Modulus, psi	D-638	151,000	173,000
% Elongation	D-638	26	29
Tg by DMA, E", °F(°C)	D-4065	194 (90)	217 (103)
Deflection Temperature, °F(°C) 66 psi	D-648	176 (80)	181 (83)
264 psi		144 (62)	150 (66)
Ultimate Compressive Strength, psi	D-695	30,700	26,000
Compressive Modulus, psi	D-695	152,000	174,000
Izod Impact, notched, ft-lb./in	D-256	1.3	1.1
Coefficient of Thermal Expansion	D-3386		
-22 to 86°F, in/in/°F		69 x 10 ⁻⁶	68 x 10 ⁻⁶
-30 to 30°C, in/in/°C		124 x 10 ⁻⁶	123 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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