

**Advanced Materials****RP 4037 Resin / hardener****HIGH-TEMPERATURE ALUMINUM FILLED CASTING SYSTEM****DESCRIPTION:**

Ren<sup>®</sup> RP 4037 R/H is a non-MDA, MPDA, VCHD aluminum-filled epoxy casting system intended for use to 300°F (149°C). Intermittent use to 350°F (177°C) is possible. RP 4037 R/H can be cast to 4" thick in nonconductive molds and 6" thick in conductive molds.

**MIXING RATIO:**

	By weight:	By Volume:
Resin to Hardener	100 to 13	100 to 22

**TYPICAL HANDLING PROPERTIES\*:**

Property	ASTM Method	Resin	Hardener	Mixed
Color	Visual	Gray	Brown	Gray
Specific Gravity	D-1963	1.66 – 1.76	1.01 – 1.03	
Viscosity, cP	D-2393	39,600	400 – 700	15,000
Gel Time, 14 fl. oz, minutes	D(2471)			140

**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:**

- 77°F (25°C) at 24 hours, **plus**  
200°F (93°C) at 2 hours, **plus**  
250°F (121°C) at 2 hours, **plus**  
300°F (149°C) at 2 hours, **plus**  
350°F (177°C) at 2 hours

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**TYPICAL CURED PROPERTIES\*:**

Property	ASTM Test Method	Cure Values
Density, lb./ft <sup>3</sup> (g/cm <sup>3</sup> )	D-792	(1.58)
Cubic Inch per Pound	D-792	17.6
Hardness, Shore D	D-2240	91
Ultimate Flexural Strength (psi)	D-790	9,300
Flexural Modulus, psi	D-790	930,000
Ultimate Tensile Strength, psi	D-638	6,300
Tg by DMA, E", °F (°C)	D-4065	350 (177)
Ultimate Compressive Strength, psi	D-695	25,800
Coefficient of Thermal Expansion 86 to 212°F, in/in/°F 30 to 100°C, in/in/°C	D-3386	22.5 x 10 <sup>-6</sup> 40.5 x 10 <sup>-6</sup>
Linear Shrinkage, in/in	D-2566	0.005

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

\*\* Molds are half round steel, 10 inches long, 4.250 inches deep

**NOTE:** Typical Properties – 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 Quality Control Department.

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**SAFETY/HANDLING PRECAUTIONS:**

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

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**SHELF LIFE:**

Provided materials are under the recommended storage conditions in their original containers, they will remain in useable condition for at least two years from date of shipping.

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