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Advanced Materials

RenCast® 4036 / Ren® 1511



HIGH-TEMPERATURE ALUMINUM FILLED CASTING SYSTEM

DESCRIPTION:

RenCast® 4036/Ren® 1511 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. RenCast® 4036/Ren® 1511 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



TYPICAL CURED PROPERTIES*:

Property	ASTM Test Method	Cure Values
Density, lb./ft ³ (g/cm ³)	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 ⁻⁶ 40.5 x 10 ⁻⁶
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.

STORAGE:

RenCast[®] 4036 and Ren[®] 1511 should be stored in a dry place, in the sealed original container, at temperatures between +2°C and +40°C (+35.6°F and 104°F). Under these storage conditions, the shelf life is 2 years. The product should not be exposed to direct sunlight.

PRECAUTIONARY STATEMENT:

Huntsman Advanced Materials Americas LLC maintains up-to-date Material Safety Data Sheets (MSDS) on all of its products. These sheets contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Users should review the latest MSDS to determine possible health hazards and appropriate precautions to implement prior to using this material.

First Aid!

Refer to MSDS as mentioned above.

KEEP OUT OF REACH OF CHILDREN

FOR PROFESSIONAL AND INDUSTRIAL USE ONLY



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