



Product Data

RenCast™200/Ren®200

ALUMINUM FILLED EPOXY CASTING SYSTEM

DESCRIPTION: RenCast 200(Resin)/Ren 200(Hardener) is an aluminum filled casting resin specifically designed for low shrinkage and low exothermic casting. RenCast 200 has low mixed viscosity, which produces high detail, low-void castings. RenCast 200 is Thermoset 200 produced by Vantico.

APPLICATIONS: Casting applications requiring a high level of aluminum filler such as stretch dies, lost wax molds, patterns and other tools. RenCast 200 machines well.

MIXING INSTRUCTIONS: Reaction Ratio 100R to 10H by wt. 100R to 19H by vol.

Mixing: Stir each component thoroughly before use. Weigh each component accurately ($\pm 5\%$) into clean containers. Thoroughly mix resin and hardener together (minimum 3 minutes) scraping container sidewalls, bottom and mixing stick several times to assure a uniform mix.

TYPICAL MIXED PROPERTIES:

Property	ASTM Test Method	Test Values ⁽¹⁾
Working Life	D-2471	90 min.
Color, mixed or Resin Hardener Mixed	Visual	Gray Amber Gray
Viscosity, mixed	D-2393	25,000 – 30,000 cP

⁽¹⁾Tested @ 77°F (25°C)

TYPICAL CURED PROPERTIES:

Property	ASTM Test Method	Test Values ⁽¹⁾
Density	D-792	1.74
Cubic inch per pound	D-792	15.9
Hardness (Shore D)	D-2240	88
Ultimate Compressive Strength (psi)	D-695	12,000
Compressive Modulus (psi)	D-695	354,000
Ultimate Flexural Strength (psi)	D-790	10,600
Flexural Modulus (psi)	D-790	816,000
Ultimate Tensile Strength (psi)	D-638	6,000
Tensile Modulus (psi)	D-638	1,150,000
Tg per DMA °F (°C)	D-4065	158 (70)
Coefficient of Thermal Expansion (in/in/°F) -30°C to +30°C	D-3386	2.35 x 10 ⁻⁵
Shrinkage (in/in) Mold #2	D-2566	0.0017

⁽¹⁾Cure Schedule – 7 days @ 77°F (25°C), tested at 77°F

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.

CURING INSTRUCTIONS: Although room temperature epoxies will normally set up to a rigid, demoldable state within 24 hours at room temperature (75°F ± 5°F), these systems reach their full cure after seven days at room temperature. A full cure can be accelerated by applying heat after the part has set rigid. We recommend a post cure of 150°F for a minimum of six hours. (Add to this adequate time to bring the part to the post cure temperature.) After cure, the part should be cooled at a slow rate so as not to shock the part thermally.

Uniform heat distribution is also required during post cure; concentrated heat, such as that directed from a lamp, can cause warp. An elevated temperature cure will slightly increase the shrinkage compared to a room temperature cure.

STORAGE/HANDLING INFORMATION:

RenCast 200/Ren 200

Store at 60-100°F in a dry place. After use tightly reseal.

Work in a well ventilated area and use clean, dry tools for mixing and applying. For two component system, combine the resin and hardener according to mix ratio. Mix together thoroughly and use immediately after mixing. Material temperature should not be below 65°F (18°C) when mixing.

RenCast 200

This product may crystallize upon storage. If crystallized, vent container and heat to 125-145°F until crystals dissolve. Stir well after product has liquefied.

Stir well before use. This material will separate.

SHELF LIFE: Provided materials are stored under the recommended storage conditions in their original containers, they will remain in useable condition for at least one year from date of shipping.

PACKAGING: This product is available in the following package size(s):

15.4# total weight	Units of Resin and Hardener
75# Resin	5 gal. pails
7.5# Hardener	1 gal. pail
700# Resin	Drums (special order)
35# Hardener	5 gal. pails (special order) (2 required per resin drum)

Please call Customer Service (800-367-8793) for price and availability.

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

RenCast 200

DANGER! Causes severe skin irritation. Causes eye irritation. May cause skin burns and allergic skin reaction. Avoid contact with eyes, skin, or clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Ren 200

DANGER! CORROSIVE – Causes eye burns and skin burns. Harmful if absorbed through skin. May cause allergic skin and respiratory reactions. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

Nuisance dust may be generated when sanding or sawing cured material.

FIRST AID: In case of contact with:

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.

Eyes: Immediately flush with water for at least 15 minutes. Call a physician.

Ingestion: If conscious, give plenty of water to drink. Do not induce vomiting. Call a physician.

Inhalation: Remove to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

Other: Referral to physician is recommended if there is any question about the seriousness of any injury.

PRECAUTIONARY NOTE: Thermosetting systems generate heat when curing. The amount of heat and the period of time in which heat is released vary significantly between systems. Additionally, ambient or compound temperature, amount of material mixed, and construction and shape of the mold or container can also be factors in the temperature profile of a mixed system.

In some cases, the thermosetting reaction can be vigorous, generating heat sufficient to cause decomposition of the system with subsequent liberation of large volumes of acrid smoke.

A good rule of thumb is never mix more material than can be applied during the stated pot life or gel time. Also take care when using materials in applications other than stated on the Product Data Sheet, i.e., a laminating resin for casting.

Please feel welcome to call our Product Information Department or your local Ren representative for instructions before you start your job.

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