



Product Data

RenLam™ 1700-1/Ren® 1700-1 GENERAL PURPOSE LAMINATING SYSTEM

DESCRIPTION: RenLam 1700-1(Resin)/Ren 1700-1(Hardener) is an unfilled, two-component general purpose laminating system that cures at room temperature. Low viscosity, a 20-minute gel time, excellent wet-out characteristics, and controlled flow make RenLam 1700-1 easy to apply and work with. This system was designed for hand lay-up applications and can be used for building tools, parts, and for repair work.

APPLICATIONS: RenLam 1700-1 is well suited for patterns, drill jigs, assembly fixtures, Keller models, body cubes, draw dies, master die models, spotting racks, etc.

MIXING INSTRUCTIONS: Reaction Ratio 100R to 26H by weight
100R to 28H by volume

Mixing: Stir each component thoroughly before use. Weigh each component accurately (± 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⁾
Gel time (4 fl.oz.)	D-2471	20 mins.
Color, mixed	Visual	Light yellow
Viscosity, Mixed	D-2393	2000 cP

⁽¹⁾Tested @ 77°F (25°C)

TYPICAL CURED PROPERTIES:

Property	ASTM Test Method	Test Values ⁽¹⁾
Specific Gravity	D-792	1.13
Cubic inch per pound	D-792	18.5
Hardness (Shore D)	D-2240	90
Ultimate Compressive Strength (psi)	D-695	28,000
Ultimate Flexural Strength* (psi)	D-790	37,000
Flexural Modulus* (psi)	D-790	1.55 x 10 ⁶
Ultimate Tensile Strength* (psi)	D-638	26,000
Deflection Temperature (264 psi) (°F)	D-648	128
Coefficient of Thermal Expansion (in/in/°F)	D-3386	1.0 x 10 ⁻⁵

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

*Properties determined for a 10 oz. glass cloth laminate.

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 postcure of 150°F for a minimum of six hours. (Add to this adequate time to bring the part to the postcure 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 postcure; 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:

RenLam 1700-1/Ren 1700-1

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.

RenLam 1700-1

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.

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):

Small Preweighed Units: 6-quart resin/6 preweighed hardener

Pail Units: Pail resin/appropriate hardener

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.

RenLam 1700-1

WARNING! Causes eye and skin irritation. May cause allergic skin reaction.

Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Ren 1700-1

DANGER! CORROSIVE – causes eye burns and skin irritation.

Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

FIRE PRECAUTIONS: In case of fire, use carbon dioxide, foam, dry chemical or water spray. Decomposition and combustion products may be toxic. Use self-contained breathing apparatus.

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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