



Product Data

**RenLam™ 569/Ren® 569-1 (FAST)**  
**RenLam™ 569/Ren® 569-2 (SLOW)**  
**LAMINATING SYSTEMS**

**DESCRIPTION:** RenLam 569 (Resin)/Ren 569-1 or Ren 569-2 (Hardeners) are glass fiber reinforced laminating paste systems that greatly simplify the construction of tools or tooling aids. With these systems a tool can be produced in one operation instead of building up individual layers of glass cloth.

Note: The RenLam 569 has been formulated to improve mixability and working characteristics which will help reduce the labor needed to construct the tool.

**APPLICATIONS:** RenLam 569 with Ren 569-1 is used for the construction of small tools or construction of tools where the desired thickness is less than ½ inch.

RenLam 569 with Ren 569-2 is used on larger tools or construction of tools where the desired thickness is up to 1 inch.

Tools required to withstand high mechanical stresses must be constructed by the hand lay-up method.

**MIXING INSTRUCTIONS:** Reaction Ratio **RenLam 569/Ren 569-1** **RenLam 569/Ren 569-2**  
 100R to 11H by wt. 100R to 14H by wt.

**Mixing:** Stir each component thoroughly before use. Weigh each component accurately (± 5%) into clean containers. They must be mixed together using a mechanical mixer (such as a Hobart or Kol mixer). Thoroughly mix resin and hardener together (minimum 3 minutes) scraping container sidewalls, bottom and mixing stick several times to assure a uniform mix. The blue pigmented hardener enables simple visual assessment of the homogeneity of the mix. Prolonged mixing may raise the temperature of the laminating paste and as a result shorten pot life.

**TYPICAL MIXED PROPERTIES:**

Property	ASTM Test Method	Test Values <sup>(1)</sup>	
		RenLam 569/Ren 569-1	RenLam 569/Ren 569-2
Gel time (6.5 lbs.)	D-2471	35 min.	50 min.
Color	Resin Hardener Mixed	Visual	White Blue Light blue
Viscosity, mixed	D-2393	Dough-like consistency	Dough-like consistency
Demold time		16 hours	24 hours

<sup>(1)</sup>Tested @ 77°F (25°C)

## TYPICAL CURED PROPERTIES:

Property	ASTM Test Method	Test Values <sup>(1)</sup>	
		RenLam 569/Ren 569-1	RenLam 569/Ren 569-2
Specific Gravity	D-792	1.20	1.14
Cubic inch per pound	D-792	23	23
Hardness (Shore D)	D-2240	80	80
Ultimate Compressive Strength (psi)	D-695	8,000	5,000
Ultimate Flexural Strength (psi)	D-790	4,600	4,000
Flexural Modulus (psi)	D-790	0.38 x 10 <sup>6</sup>	0.25 x 10 <sup>6</sup>
Ultimate Tensile Strength (psi)	D-638	2,800	1,800
Deflection Temperature (°F) @ 264 psi	D-648	150	138
Coefficient of Thermal Expansion (in/in/°F)	D-3386	3.80 x 10 <sup>-5</sup>	4.80 x 10 <sup>-5</sup>

<sup>(1)</sup>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.

**APPLYING:** Approximately 1.5 pounds of RenLam 569 laminating paste will cover one square foot, ¼” thick. RenLam 569 laminating paste is normally applied over a general purpose epoxy surface coat such as RenLam 1126. Two surface coats are recommended to eliminate print-through of the laminating paste onto the surface of the tool. In addition to the surface coat, a coupling coat should be brushed onto the surface coat to enhance adhesion and prevent the entrapment of air voids. The laminating paste should be applied immediately onto the coupling coat. The surface coat used can be used as coupling coat or you can thicken a general purpose epoxy laminating system such as RenLam 1700-1 with chopped glass fibers.

Apply laminating paste as evenly as possible by hand, then smooth and compress with a roller. Always wear gloves to protect hands and eye protection to guard against splashes.

**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:

### RenLam 569 and Ren 569-1 and Ren 569-2

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.

**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):

Pails of RenLam 569 at 23# each  
Ren 569-1 – small pails at 2.5# each  
Ren 569-2 – small pails at 3.2# each

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 569**

**WARNING!** Causes skin and eye 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 569-1**

**DANGER! CORROSIVE** – Causes eye burns and severe skin irritation. May cause skin burns. May cause allergic skin reactions. Harmful if absorbed through skin.

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

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

**Ren 569-2**

**DANGER! CORROSIVE** – Causes eye burns and severe skin irritation. May cause skin burns. May cause allergic skin reactions.

Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin. 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.

**IMPORTANT:** The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES AND CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential, or indirect damages for alleged negligence, breach of warranty, strict liability, tort, or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled or lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

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