

**Advanced Materials****RenLam®/Ren® 1700-1 System**

## GENERAL PURPOSE LAMINATING SYSTEM

**DESCRIPTION :**

RenLam®/Ren® 1700-1 system 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®/Ren® 1700-1 system 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®/Ren® 1700-1 system is well suited for patterns, drill jigs, assembly fixtures, Keller models, body cubes, draw dies, master dir 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. Weight 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 <sup>(1)</sup>
Gel time (4 fl. Oz.)	D-2471	20 minutes
Color, mixed	Visual	Light yellow
Viscosity, mixed	D-2393	2000 cP

<sup>(1)</sup> Tested @ 77 °F (25 °C)

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**TYPICAL CURED PROPERTIES :**

<b>Property</b>	<b>ASTM Test Method</b>	<b>Test Values <sup>(1)</sup></b>
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 <sup>6</sup>
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 x 10 <sup>-5</sup>

<sup>(1)</sup> 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.

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**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.

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**HANDLING :****RenLam<sup>®</sup>/Ren<sup>®</sup> 1700-1 Resin and Hardener**

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 18 °C (65 °F) when mixing.

**RenLam<sup>®</sup>/Ren<sup>®</sup> 1700-1 Resin**

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.

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**PACKAGING :**

This product is available in the following package sizes:

Small Preweighed Units :       6-qt. Resin / 6 preweighed hardener  
Pail Units :                       Pail Resin / appropriate hardener

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

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**STORAGE :**

RenLam<sup>®</sup>/Ren<sup>®</sup> 1700-1 system 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.

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**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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Main Offices :  
**Huntsman Corporation**  
10003 Woodloch Forest Dr.  
The Woodlands  
Texas 77380  
(281) 719-6000

**Huntsman Advanced Technology  
Center**  
8600 Gosling Rd.  
The Woodlands  
Texas 77381  
(281) 719-7400  
Website :  
[www.huntsman.com/advanced\\_materials](http://www.huntsman.com/advanced_materials)