

Advanced Materials

RenLam® 8100 / Ren® 8100 Fast System



GENERAL PURPOSE LAMINATING SYSTEM

DESCRIPTION:

RenLam[®] 8100 Resin with Ren[®] 8100 Fast Hardener offers good wet-out and excellent strength to aid in the construction of high-quality, stable laminated tools.

MIXING INSTRUCTIONS:

Reaction Ratio 100R to 25 Fast H by weight

100R to 29 Fast H by volume

TYPICAL MIXED PROPERTIES:

		Test Values ⁽¹⁾	
Property	ASTM Test Method		
Gel time (4 fl. oz.)	D-2471	35 mins.	
Color, mixed	Visual	Light yellow	
Viscosity, Mixed	D-2393	2500 cP	

⁽¹⁾ Tested @ 77°F (25°C)

TYPICAL CURED PROPERTIES*:

Property	ASTM Test Method	Test Values ⁽¹⁾
Hardness (Shore D)	D-2240	92
Ultimate Compressive Strength (psi)	D-695	23,450
Compressive Modulus (psi)		
Ultimate Flexural Strength (psi)	D-790	42,180
Flexural Modulus (psi)	D-790	1.91 x 10 ⁶
Ultimate Tensile Strength (psi)	D-638	32,224
Tensile Modulus, psi	D-638	2.18 x 10 ⁶
% Elongation	D-638	2.2
Tg by DMA E", °F, (°C)	D-648	167 (74.4)
Coefficient of Thermal Expansion -22 to 86°F (in/in/°F)	D-3386	12 x 10 ⁻⁶
-30 to 30°C (in/in/°C)		22 x 10 ⁻⁶

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



^{*} Layup: Contact, 8 layer Volan A 7500 glass cloth, 90° Rotation.



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® 8100 / Ren® 8100 Fast System

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® 8100 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.

STORAGE:

RenLam®/Ren® 8100 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.

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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