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Advanced Materials

Ren-Weld® 103 System

RENSHAPE® BONDING / REPAIR ADHESIVES

DESCRIPTION:

Ren-Weld® 103 system is a liquid, brushable epoxy adhesive. Ren-Weld® 103 system is a low viscosity and easy to mix yet contains flow control agents to prevent excessive run-out.

APPLICATIONS:

For use as bonding and repair adhesive for RenShape® machinable modeling, styling, and tooling boards. It is a good general purpose material for applications not exposed to high-temperatures or needing critical bondline read-through.

ADVANTAGES:

- Low viscosity
- Easy to apply
- Excellent adhesion to most tooling materials

MIXING INSTRUCTIONS:

Reaction Ratio	By weight:	100 to 26 Resin to Hardener
	By volume	100 to 28 Resin to Hardener

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 HANDLING PROPERTIES
Tested @ 77°F (25°C) unless otherwise noted.

Property	Criteria	ASTM test Method	Test Value
Color	Resin Hardener Cured	Visual	Light Blue Clear Amber Light Yellow
Specific Gravity	Resin Hardener	D-1963	1.10 1.04
Viscosity, cP	Resin Hardener Mixed	D-2393	2,500 1,600 2,100
Gel Time, minutes	160g	D-2471	20

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.

PROCESSING:

Laminate cut boards together using Ren-Weld® 103 system. Apply the adhesive to both sides of the glue joint.

Gently clamp the structure and cure overnight at room temperature. Avoid excessive clamping pressure that can induce stress in the finished model.

For a final tool used in applications where it will be exposed to heat or where bondline read-out is unacceptable, consult the Product Selector Guide or your technical sales representative for a suggestion of an adhesive with a more closely-matched thermal coefficient of expansion for your application and temperature range.

RECOMMENDED CURE SHCEDULES:

Temperature	Full Cure Time	Handling Strength
77°F (25°C)	48 hours	12 hours

Curing Instructions: Although room temperature epoxies will normally set up to machine within 24 hours at room temperature, these systems reach their full cure after seven days at room temperature.

PACKAGING:

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

Unit		Weight
Quart kit	*System*	2.10 lb.
C package	*System*	10.08 lb.
6-quart	*Resin*	9.786 lb.
6-pint	*Hardener*	2.82 lb.

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

STORAGE:

Ren-Weld® 103 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.

This product may crystallize upon storage. If crystallized, vent container and heat to 51.7°C and 62.8°C (125-145°F) until crystals dissolve. Stir well after product has liquefied. Stir well before use. This material will separate.

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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