



Product Data

**PROVISIONAL**

**ARALDITE<sup>®</sup> SV 4569  
HV 4569 HARDENER  
SEAMLESS MODELING AND TOOLING PASTE**

**REN<sup>®</sup> Epoxy**

**DESCRIPTION:** Araldite SV/HV 4569 system is a machine applied, heat resistant epoxy paste. This system is a cost-effective way to produce highly accurate precision models, molds, and fixtures for applications up to 176°F (80°C)

The Araldite SV/HV 4569 resin and hardener are proportioned, mixed, and dispensed via a purpose built application machine. The applicator nozzle is designed to extrude paste directly onto an undersize form, with horizontal, vertical, or slightly overhanging contours. Once hardened, this product provides a seamless surface for CNC machining of the final tool contours.

**APPLICATIONS:**

- Automotive jigs and quality control fixtures
- Prepreg curing molds
- Aircraft Models

**ADVANTAGES:**

- For use in applications up to 176°F (80°C)
- Applied in layers up to 1.2 inches (30mm)
- Excellent physical properties – good edge strength and definition
- Room temperature curing, machinable after 2 days
- Option of post cure to develop full mechanical and thermal properties
- Easily machined formulation, producing a fine, seamless surface
- Compatible with epoxy prepregs

**MIX RATIO:** By weight      100 to 100      Resin to Hardener  
 By volume      100 to 100      Resin to Hardener

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

Property	Criteria	ASTM Test Method	Test Value
Color	Resin Hardener Cured	Visual	Dark gray White Dark gray
Specific Gravity	Resin Hardener	D-1963	1.5-1.7 1.5-1.7
Gel Time, minutes	1.2 inch thickness	D-2471	240-320

**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:** Ensure undersize form is strong, stable, clean, and free of loose material. Apply paste as a single layer up to 1.2 inches in thickness using suitable meter-mix equipment.

Your Vantico technical representative is available for consultation regarding the selection criteria for meter-mix equipment for your specific tooling circumstances.

**RECOMMENDED CURE SCHEDULE:**

<i>Minimum properties:</i>	<b>Temperature</b> 77°F (25°C)	<b>Time</b> 72 hours
<i>Enhanced properties:</i>	77°F (25°C)	24-48 hours
<b>Plus</b>	175°F (80°C)	8 hours

\* Maximum temperature rise of 1°F per minutes

**TYPICAL CURED PROPERTIES:** Cured 72 hours @ 77°F (25°C) unless otherwise noted.  
Tested @ 77°F (25°C) unless otherwise noted.

Property	ASTM Test Method	Test Value <sup>1</sup>	Test Value <sup>2</sup>
Density, lb./ft <sup>3</sup> (g/cm <sup>3</sup> )	D-792	100 (1.6)	100 (1.6)
Cubic inch per pound		17.3	17.3
Hardness, Shore D	D-2240	79-80	83-84
Flexural Strength, psi	D-790	5,650	8,550
Tg by TMA, °F(°C)	TMA	108 (42)	183 (84)
Ultimate Compressive Strength, psi	ISO 604	8,200	13,300
Coefficient of Thermal Expansion, in/in/°F	TMA	30 x 10 <sup>-6</sup>	25 x 10 <sup>-6</sup>

<sup>1</sup>Cured 72 hours @ 77°F (25°C)

<sup>2</sup>Cured 72 hours @ 77°F (25°C) plus 8 hours @ 175°F (80°C)

**PACKAGING:**

<u>Unit</u>		<u>Weight</u>
Drum	Resin	440 lb.
Drum	Hardener	440 lb.

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

**STORAGE/HANDLING:** Store containers with lids sealed properly in dry conditions. Resin and Hardener should be combined in the proper ratio using automatic metering and mixing equipment. Material that has been stored in cold areas requires being held at room temperature for up to three days to restore to recommended material processing temperature (60 to 75°F).

**SHELF LIFE:** Provided materials are stored under the recommended storage conditions in their original containers, they will remain in useable condition for three months from date of shipping.

**SAFETY/HANDLING PRECAUTIONS:** Do not use or handle this product until the Material Safety Data Sheet has been read and understood.

**Araldite SV/HV 4569 Resin**

**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.

## SAFETY/HANDLING PRECAUTIONS (continued)

### Araldite SV/HV 4569 Hardener

**DANGER! CORROSIVE** – Causes eye burns and skin burns. Causes respiratory irritation. May cause allergic skin reaction.

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.

**NOTICE!** Overexposure may cause damage to blood, kidney, liver, skin, and urinary bladder.

**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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