

**Advanced Materials****Araldite® AV 1253 Resin  
Hardener HV 1253 Adhesive**

## CARVABLE EPOXY PASTE FOR WOOD

**DESCRIPTION :**

Araldite® AV 1253 resin/hardener HV 1253 epoxy adhesive is a carvable paste especially suited for bonding and repairing wood. Mahogany in color, it is easy to saw, carve, drill, tap and work with woodworking tools. The two-component epoxy system is color coded to facilitate thorough mixing and has easy-to-use, one-to-one (by volume) mixing ratio. Although it is recommended for repairing and bonding wood products, the epoxy system can also be used to bond metals and other substrates.

**TYPICAL PROPERTIES :**

<u>Property</u>	<u>Test Method</u>	<u>Test Values<sup>(1)</sup></u>	
		<u>Resin</u>	<u>Hardener</u>
Color/Form	Visual	Brown Paste	Light Purple Paste
Specific Gravity	ASTM D-792	0.82	0.64
Resistance @ 77 °F (25 °C)		Pass 1 in. (2.5cm)	Pass 0.5 in. (1.25cm)
		Fail 1.25 in. (3.2 cm)	Fail 0.75 in. (1.92 cm)

**TYPICAL MIXED PROPERTIES :**

<u>Property</u>	<u>Test Method</u>	<u>Test Values<sup>(1)</sup></u>
Resin/Hardener Ratio (by weight)	ASTM D-2471	100/82
Resin/Hardener Ratio (by volume)		100/100
Pot Life @ 77 °F (25 °C)		20 min.
Sag Resistance @ 77 °F (25 °C)		Pass 0.5 in. (1.25 cm) Fail 1 in. (2.5 cm)

**CURE SCHEDULE :**

<u>Temperature</u>	<u>Cure Time</u>
77 °F (25 °C)	6 hours
140 °F (60 °C)	30 minutes
212 °F (100 °C)	10 minutes
302 °F (150 °C)	10 minutes

**TYPICAL CURE PROPERTIES :**

**Lap shear strength Effect of Time and Temperature**

<u>Cure Temperature</u>	<u>Exposure Time</u>	<u>Shear Strength</u>	
		<u>psi</u>	<u>MPa</u>
77 °F (25 °C)	4 hours	1560	11
	8 hours	1990	14
	24 hours	2280	16
140 °F (60 °C)	10 min	1560	11
	20 min	1990	14
	30 min	1990	14
212 °F (100 °C)	5 min	1710	12
	10 min	1850	13
	20 min	1850	13
302 °F (150 °C)	30 min	1990	14
	5 min	1710	12
	10 min	1850	13
	20 min	1850	13
	30 min	1850	13

**TYPICAL CURE PROPERTIES :****Effect of Temperature**

Load applied 10 minutes after joint test temperature – cured 20 min at 212 °F (100 °C)

<u>Cure Temperature</u>	<u>Shear Strength</u>	
	<u>psi</u>	<u>MPa</u>
-76 °F (-60 °C)	1710	12
77 °F (25 °C)	1990	14
176 °F (80 °C)	140	1

**Properties of Araldite® AV 1253 resin / Hardener HV 1253 adhesive**

Cured 7 days @ 77 °F (25 °C)

**Deflection Temperature, °F (°C) (ASTM D-648) @ 66 psi** 124 (51)

<u>Property</u>	<u>Test Method</u>	<u>psi</u>	<u>MPa</u>
Compressive Properties	(ASTM D-695) @ 77 °F (25 °C)		
Strength – ultimate		4120	29
Strength – 0.02 % offset		2840	20
Modulus of elasticity		161000	1130
Tensile Properties	(ASTM D-638) @ 77 °F (25 °C)		
Strength – ultimate		2130	15
Strength – 0.02 % offset		1850	13
Modulus of elasticity		140000	985
Flexural Properties	(ASTM D-790) @ 77 °F (25 °C)		
Strength – ultimate		4270	30
Modulus of elasticity		149000	1050

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

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**CAUTION :**

Huntsman Advances Materials Americas Inc. maintains up-to-date Material Safety Data Sheet (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. Copies of the latest MSDS may be requested by calling our customer service group at 800-367-8793 or emailing your request to [adhesives\\_group@huntsman.com](mailto:adhesives_group@huntsman.com)

To protect against any potential health risks presented by our products, the use of proper personal protective equipment (PPE) is recommended. Eye and skin protection is normally advised. Respiratory protection may be needed if mechanical ventilation is not available or is insufficient to remove vapors.

For detailed PPE recommendations and exposure control options consult the product MSDS or a Huntsman EHS representative.

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**FIRST AID :**

Eyes and skin : Flush eyes with water for 15 minutes. Contact a physician if irritation persists. Wash skin thoroughly with soap and water. Remove and wash contaminated clothing before reuse.

Inhalation : Remove subject to fresh air.

Swallowing : Dilute by giving water to drink and contact a physician promptly. Never give anything to drink to an unconscious person.

**KEEP OUT OF REACH OF CHILDREN**

**FOR PROFESSIONAL AND INDUSTRIAL USE ONLY**

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