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Product Data

ARALDITE[®] 557 A/B

RAPID, CLEAR EPOXY ADHESIVE

DESCRIPTION:

The Araldite 557 A/B epoxy adhesive is an exceptionally rapid-setting, two-component clear material. Mixing is convenient with a one-to-one resin-to-hardener ratio, by volume or weight. Good bonding is obtained on a wide variety of substrates in a very short period of time. No special handling or application techniques are required.

APPLICATIONS:

- Small part bonding/assembly
 - Rapid repairs
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ADVANTAGES:

- Rapid setting
 - Transparent bond line after curing
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**TYPICAL
PROPERTIES:**

<u>Property</u>	<u>Test Method</u>	<u>Test Values⁽¹⁾</u>	
		<u>Resin</u>	<u>Hardener</u>
Color/Form	Visual	Clear Amber/ Thick liquid	Clear Amber/ Thick liquid
Specific Gravity	ASTM D-792	1.16	1.14
Viscosity (cP) @ 77°F (25°C)	ASTM D-2393	14,000	14,000

**TYPICAL MIXED
PROPERTIES:**

<u>Property</u>	<u>Test Method</u>	<u>Test Values⁽¹⁾</u>
Resin/Hardener Ratio (by weight)	ASTM D-2471	100/100
Resin/Hardener Ratio (by volume)		100/100
Color/Form	Visual	Clear amber, thick liquid
Pot Life, minutes @ 77°F (25°C), 50 gram mass	ASTM D-2471	3-4 5-6
Gel Time, minutes @ 77°F (25°C), 1/16 in. (1.6 mm) thick film		

CURE SCHEDULES:

	Lap shear after curing for various times @ 77°F (25°C) for aluminum adherends (ASTM D-1002)	<u>Shear Strength @25°C (77°F)</u>	
	<u>Cure Time</u>	<u>psi</u>	<u>MPa</u>
	30 min	1710	12
	1 hour	2700	19
77°F (25°C)	4 hours	3840	27
140°F (60°C)	8 hours	4120	29
	16 hours	2700	19
212°F (100°C)	24 hours	2560	18

**TYPICAL CURED
PROPERTIES:****Mixing/Application of Adhesive**

Mix resin and hardener thoroughly on a clear, dry surface. Bonding surfaces can include wood, metal, plastic and cardboard.

For best results, the two surfaces being bonded should be free of oil, dirt, moisture and other such contaminants and should be slightly roughed or sanded to remove gloss.

TYPICAL CURED PROPERTIES:

Lap shear strength at different temperatures for aluminum adherends (ASTM D-1002). Load applied 10 minutes after joint reached test temperatures.

<u>Test Temperature</u> °F (°C)	<u>Shear Strength</u> @ 77°F (25°C)	
	<u>psi</u>	<u>MPa</u>
-40°F (-40°C)	1560	11
77°F (25°C)	2560	18
104°F (40°C)	1280	9
140°F (60°C)	570	4

Lap shear strength after aging @ 140°F (60°C) for aluminum adherends (ASTM D-1002). Cured 24 hours @ 77°F (25°C)

<u>Aging Period</u>	<u>Shear Strength</u> @ 77°F (25°C)	
	<u>psi</u>	<u>MPa</u>
0 days	2560	18
10 days	4850	34
30 days	5120	36
16 hours	4850	34

Lap shear strength after aging @ 120°F (49°C) and 92% relative humidity for aluminum adherends (ASTM D-1002). Cured 24 hours @ 77°F (25°C)

<u>Aging Period</u>	<u>Shear Strength</u> @ 77°F (25°C)	
	<u>psi</u>	<u>MPa</u>
0 days	2560	18
10 days	2700	19
30 days	1280	9
16 hours	2700	19

CAUTION:

Huntsman Advanced Materials Americas Inc. 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. 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.

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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