

**Advanced Materials****ARALDITE® 5872 A/B****90-SECOND MULTI-PURPOSE ADHESIVE****UL RECOGNIZED SYSTEM COMPONENT IN UL RECOGNIZED 180°C CLASS  
ELECTRICAL INSULATION SYSTEM**

---

**Description**

ARALDITE 5872 A/B epoxy adhesive is a multi-purpose, two-component system that cures quickly at room temperature. It features a 90-second gel time. ARALDITE 5872 A/B epoxy adhesive is designed for rapid bonding of metals, ceramics, glass, rubbers and rigid plastics. It is a versatile adhesive that can be used by craftsmen and for industrial applications.

---

**Applications**

ARALDITE 5872 A/B epoxy adhesive is suitable for bonding:

- Metals
- Ceramics
- Vulcanized rubber
- Glass
- Wood
- Plastics

---

**Advantages**

- High shear and peel strengths
- Tough and resilient
- Fast curing
- Bonds well to a wide range of substrates

---

---

<b>Typical Properties</b>	<b>Property</b>	<b>Test Method</b>	<b>Test Values<sup>(1)</sup></b>	
			<b>Resin</b>	<b>Hardener</b>
	Color/appearance	Visual	Transparent Liquid	Pale Yellow Liquid
	Specific Gravity	ASTM D-792	1.16	1.14
	Viscosity, cP @ 77°F (25°C)	ASTM D-2393	25,000	15,000

---

<b>Typical Mixed Properties</b>	<b>Property</b>	<b>Test Method</b>	<b>Test Values<sup>(1)</sup></b>	
	Reaction Ratio (by weight)		100R/100H	
	Reaction Ratio (by volume)		100R/100H	
	Viscosity, cP @ 77°F (25°C)	ASTM D-2393	20,000	
	Pot Life, seconds @ 77°F (25°C), 2 gram mass	ASTM D-2471	90	

---

<sup>1</sup>Tested @ 77°F (25°C)

---

<b>Recommended Cure Schedules</b>	<b>Temperature</b>	<b>Cure Time</b>
	77°F (25°C)	60 minutes

---

## Processing

### Application of Adhesive

A layer of adhesive 0.002 to 0.004-inches (0.05 to 0.10-mm) thick will normally impart the greatest lap shear strength to a joint.

The joint components should be assembled and clamped as soon as the adhesive has been applied. Even contact throughout suffices to ensure proper cure.

### Standard Test Specimens

Unless otherwise stated, the figures given below were all determined by testing standard specimens made up by lap-jointing 4-inch x 1-inch x 0.06-inch (10-cm x 2.5-cm x 1.5-mm) strips of aluminum. The joint area was 0.5 x 1 inch (12.5 mm x 2.5 cm) in each case.

---

---

## Typical Physical Properties

### Lap Shear Strength, psi (MPa)

#### Test Method

ISO-4587

#### *Effect of Test Temperature*

Load applied 10 minutes after specimens reach test temperature.

<u>Cure Cycle</u>	<u>Test Temp.</u>	<u>Test Values<sup>(1)</sup></u>
16 hours @ 104°F (40°C)	-40°F (-40°C)	2100 (14.5)
	68°F (20°C)	3100 (21.3)
	104°F (40°C)	2100 (14.5)
	140°F (60°C)	700 (4.8)
	176°F (80°C)	500 (3.4)

<sup>1</sup>Tested @ 77°F (25°C)

### Lap Shear Strength, psi (MPa)

#### *Effect of Immersion*

Cure cycle 16 hours @ 104°F (40°C). Immersion for 30 days in media listed.

<u>Media</u>	<u>Test Values<sup>(1)</sup></u>
Standard - As prepared	3100 (21.3)
Gasoline	3000 (20.6)
Acetic Acid (10%)	2400 (16.5)
Bleach (5%)	3000 (20.6)
Paraffin	3000 (20.6)
Water @ 68°F (20°C)	2600 (17.)
Water @ 194°F (90°C)	300 (2)

<sup>1</sup>Tested @ 77°F (25°C)

### Lap Shear Strength, psi (MPa)

#### *Tested on Various Substrates*

Cure cycle 16 hours @ 104°F (40°C). Immersion for 30 days in media listed.

<u>Material</u>	<u>Test Values<sup>(1)</sup></u>
Aluminum	3100 (21.3)
Stainless Steel	3700 (25.5)
Galvanized Steel	1800 (12.4)
Copper	3000 (20.6)
Brass	3600 (24.8)
SMC	1300 (8.9)
ABS	700 (4.8)
PVC	400 (2.7)
Polycarbonate	400 (2.7)
Polypropylene	300 (2)

<sup>1</sup>Tested @ 77°F (25°C), unless otherwise noted.

---

**Typical Physical Properties**

	<u>Test Values</u>
Hardness, Shore D	83
Glass Transition Temperature, °C (°F)	58 (136)
Coeff. Thermal Expansion, ppm/°C	72 (40)
Thermal Conductivity, W/mK	0.22

**Electrical Properties**

	<u>Test Values</u>
Dielectric Strength, volt/mil	600
Surface Resistivity, ohms	2.4 E+14
Volume Resistivity, ohms-cm	2.9 E+15
Dielectric Constant, at 50Hz/1KHz/10KHz	4.3/4.2/4.2
Loss Tangent, % at 50Hz/1KHz/10KHz	1.1/1.8/1.8

---

**Storage and Shelf Life**

ARALDITE epoxy adhesive components should be stored in their original, sealed containers at room temperature. When stored at temperatures from 59-77°F (15-25°C), the resin and hardener will remain in useable condition for 3 years from date of shipping from Huntsman.

---

**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 888-564-9318.

**First Aid!**

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Skin:** Immediately wash with soap and water. Remove contaminated clothing and laundry before reuse. Destroy contaminated shoes. Seek immediate medical attention.

**Inhalation:** Remove to fresh air. Seek immediate medical attention.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

**KEEP OUT OF REACH OF CHILDREN  
FOR PROFESSIONAL AND INDUSTRIAL USE ONLY**

**IMPORTANT LEGAL NOTICE**

Sales of the product described herein ("Product") are subject to the general terms and conditions of sale of either Huntsman Advanced Materials LLC, or its appropriate affiliate including without limitation Huntsman Advanced Materials (Europe) BVBA, Huntsman Advanced Materials Americas Inc., or Huntsman Advanced Materials (Hong Kong) Ltd. ("Huntsman"). The following supercedes Buyer's documents.

Huntsman warrants that at the time and place of delivery all Products sold to Buyer shall conform to the specifications provided to Buyer by Huntsman.

While the information and recommendations included in this publication are, to the best of Huntsman's knowledge, accurate as of the date of publication, NOTHING CONTAINED HEREIN (EXCEPT AS SET FORTH ABOVE REGARDING CONFORMANCE WITH SPECIFICATIONS PROVIDED TO BUYER BY HUNTSMAN) IS TO BE CONSTRUED AS A REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS, OR WARRANTIES AS TO QUALITY OR CORRESPONDENCE WITH PRIOR DESCRIPTION OR SAMPLE, AND THE BUYER ASSUMES ALL RISK AND LIABILITY WHATSOEVER RESULTING FROM THE USE OF SUCH PRODUCT, WHETHER USED SINGLY OR IN COMBINATION WITH OTHER SUBSTANCES.

No statements or recommendations made herein are to be construed as a representation about the suitability of any Product for the particular application of Buyer or user or as an inducement to infringe any patent or other intellectual property right. Buyer is responsible to determine the applicability of such information and recommendations and the suitability of any Product for its own particular purpose, and to ensure that its intended use of the Product does not infringe any intellectual property rights.

The Product may be or become hazardous. The Buyer should obtain Material Safety Data Sheets and Technical Data Sheets from Huntsman containing detailed information on Product hazards and toxicity, together with proper shipping, handling and storage procedures for the Product, and should comply with all applicable governmental laws, regulations and standards relating to the handling, use, storage, distribution and disposal of, and exposure to the Product. Buyer shall also take all steps necessary to adequately inform, warn and familiarize its employees, agents, direct and indirect customers and contractors who may handle or be exposed to the Product of all hazards pertaining to and proper procedures for safe handling, use, storage, transportation and disposal of and exposure to the Product, and the containers or equipment in which the Product may be handled, shipped or stored.

Main Offices:  
**Huntsman Corporation**  
10003 Woodloch Forest Dr.  
The Woodlands  
Texas 77380  
(281) 719-6000

**Huntsman Advanced Technology  
Center**  
8600 Gosling Rd.  
The Woodlands  
Texas 77381  
(281) 719-7400

© 2006 Huntsman Advanced Materials Americas Inc.

Araldite is a registered trademark of Huntsman Corporation or an affiliate thereof in one or more, but not all, countries.