

Preliminary Technical Data – For Customer Guidance Only

Advanced Materials

Araldite[®] 8628 Resin Araldite[®] 8629 Hardener

**FAST, HIGH-STRENGTH, FLEXIBLE, WATER CLEAR
POLYURETHANE ADHESIVE**

Description

Araldite[®] 8628 resin/Araldite[®] 8629 hardener polyurethane adhesive is a fast-setting, water clear coating material. The two-component system cures at room temperature with a convenient 1:1 resin-to-hardener mix ratio, by volume or weight. The product generates strong bonds on selected thermoplastic and thermoset composites, metals, and glass.

Advantages

Transparent/water clear
Flexible
Room temperature curing

Applications

Araldite[®] 8628 resin/Araldite[®] 8629 hardener polyurethane adhesive is ideal for use on:

Thermoplastics
Composites
Metals
Glass

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Typical Properties (as received)

	<u>Test Values</u>		<u>Test Method</u>
	<u>Resin</u>	<u>Hardener</u>	
Color/Appearance	Water clear Liquid	Water clear Liquid	Visual
Specific gravity	1.12	1.12	ASTM D-792
Viscosity, cPs @ 25°C, Spindle 6 @ 20 RPM	10,350	1,200	ASTM D-2393

Mix Ratio

	<u>Parts by weight</u>	<u>Parts by volume</u>
Araldite® 8628 Resin	100	100
Araldite® 8629 Hardener	100	100

Typical Mixed Properties*

	<u>Test Values</u>	<u>Test Method</u>
Pot life, 20 gm @ 77°F (25°C), min.	3.0 – 5.0	ASTM D-2471
Hardness, Shore A	84	ASTM D-2240

Recommended Cure Schedule

<u>Temperature</u>	<u>Handling Strength</u>	<u>Minimum Cure Time</u>
77°F (25°C)	30 minutes	6 hours

Processing**Application of Adhesive**

The resin/hardener mix may be applied to the pretreated and dry joint surfaces.

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 the 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 by lap-jointing 4 inch x 1 inch x 0.06 inch (10 cm x 2.5 cm x 1.5 cm) strips of aluminum. The joint area was 0.5 x 1 inch (12.5 x 2.5 cm) in each case.

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Typical Cured Properties

	<u>Test Values</u>	<u>Test Method</u>
Lap shear strength, psi (MPa)		ASTM D-1002
Primed Aluminum, 24 hr. cure at 77°F (25°C)	2474 (17)	
Primed Aluminum, 7 days cure at 77°F (25°C)	2491 (17.2)	
Primed Aluminum, 14 days cure at 77°F (25°C)	2686 (19)	

Tested @ 77°F (25°C). The joint area was 1 inch x 1 inch (2.5 cm x 2.5 cm) in each case and test at load speed of 0.4 in/min.

Storage and Shelf Life

Araldite® polyurethane adhesive components should be stored in their original, sealed containers at room temperature. Keep containers closed to prevent moisture absorption and contamination. These products are moisture sensitive and packaged under a blanket of dry nitrogen. If a container is opened, re-blanket with dry nitrogen and then tightly reseal.

When stored at temperatures from 59-77°F (15-25°C), the resin and hardener will remain in useable condition for 6 months 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 or emailing your request to adhesives@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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