

Huntsman Advanced Materials Americas Inc.
5121 San Fernando Road West
Los Angeles, CA 90039
818.247.6210

Customer Service Hotline: 800.367.8793
Customer Service Faxline: 517.351.6255
Technical Inquiries: 800.817.8260



website: www.araldite.com
e-mail: adhesives_group@huntsman.com

Product Data

ARALDITE[®] AW 8621 Resin Hardener HW 8621-4 HIGH-STRENGTH BLACK POLYURETHANE ADHESIVE

DESCRIPTION

Araldite AW 8621 resin/Hardener HW 8621-4 polyurethane adhesive is a two-part, black system specifically formulated for bonding plastics including polycarbonate, ABS, nylon and Telene^{®*} as well as painted metals. It features excellent environmental and impact resistance.

APPLICATIONS

- Telene
- ABS, polycarbonate and other plastics
- SMC and FRP
- Primed metals

ADVANTAGES

- Tough and resilient
- Fast setting
- Bonds a wide variety of materials

* Telene is a registered trademark of Cymetech, LLC

MIX RATIO	By Weight	70 to 100	Resin to Hardener
	By Volume	85 to 100	Resin to Hardener

TYPICAL PHYSICAL PROPERTIES Tested @ 77°F(25°C)

<u>Property</u>	<u>Criteria</u>	<u>ASTM Test Method</u>	<u>Test Value</u>
Appearance	Resin Hardener	Visual	Amber liquid Black liquid
Specific Gravity	Resin Hardener	D-792	1.12 1.35
Viscosity, cP @ 77°F (25°C)	Resin Hardener	D-2393	1,500 25,000-30,000
Gel Time, minutes @ 77°F (25°C)	70 gram mass	D-2471	5.0-6.5

CURE SCHEDULE	Temperature	Handling Strength⁽¹⁾	Minimum Cure Time
	77°F (25°C)	1 hour	12 hours
	110°F(43°C)	30 minutes	8 hours
	140°F(60°C)	15 minutes	1 hour

⁽¹⁾ Time to reach 200 psi lap shear strength

TYPICAL CURED PROPERTIES

Tested @ 77°F(25°C) unless otherwise noted⁽¹⁾
Not for specification purposes

<u>Property</u>	<u>Test Method</u>	<u>Test Values</u>
Shore Hardness	ASTM D-2240	40D (85A)
Ultimate Tensile Strength, psi (MPa)	ASTM D-638	2100 (14.5)
Elongation, %	ASTM D-638	250
Tg per DMA, °F (°C)	ASTM D-4065	122 (50)
Coefficient of Thermal Expansion, in/in/°C	ASTM D-831	7.5 x 10 ⁻⁵
Lap Shear Strength, psi (MPa)		
<i>Effect of Substrate</i>	ASTM D-1002	
Aluminum ⁽²⁾		2900 (20)
Telene® ⁽³⁾	SAE J1525	980 (6.8)
SMC	SAE J1525	520 (3.6)
Lap Shear Strength, psi (MPa)	SAE J1525	
<i>Effect of Test Temperature</i>		
<i>(Tested on SMC)</i>		
-40°F (-40°C)		550 (3.8)
73°F (23°C)		525 (3.6)
180°F (83°C)		65 (0.4)

2) Etched per ASTM D2651, Cured 12 hours at 77°F (25°C) followed by 30 minutes at 275°F (135°C)

(3) Abraded and solvent wiped

STORAGE/ 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 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

IMPORTANT LEGAL NOTICE:

Sales of a referenced product ("Product") are subject to the general terms and conditions of sale of Huntsman Advanced Materials Americas Inc. ("Huntsman").

WARRANTY: Huntsman warrants to the Buyer that the Product will conform to the published specifications for that Product at the time of manufacture.

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WARNING: Technical data and results are based upon tests under controlled laboratory conditions and must be confirmed by Buyer by testing for its intended conditions of use. The Product has not been tested for, and therefore is not recommended or suitable for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended or likely, or for uses for which implantation within the human body is intended, and Huntsman assumes no liability for any such uses.

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