



Advanced Materials

Araldite® 8680 Resin / Hardener 8685 Adhesive

HIGH-STRENGTH BLACK POLYURETHANE ADHESIVE

DESCRIPTION :

Araldite® 8680 Resin / Hardener 8685 polyurethane adhesive is a two-part, black system specifically formulated for bonding plastics including polycarbonate, ABS, nylon and Telene®¹ as well as painted metals. It features excellent environmental stability and impact resistance.

APPLICATIONS :

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

ADVANTAGES :

- Tough and resilient
- Convenient miw ratio
- Bonds a wide variety of materials
- Instant thixotropy on mixing

MIX RATION :

By Weight	80 to 100	Resin to Hardener
By Volume	100 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 Values</u>
Appearance	Resin	Visual	White thixotropic liquid
	Hardener		Black liquid
Specific Gravity	Resin	D-792	1.15
	Hardener		1.35
Viscosity (cP) @ 77 °F (25 °C)	Resin	D-2393	48,000
	Hardener		20,000
Gel Time, min. @ 77 °F (25 °C)	90 gram mass	D-2471	8-10

¹ Telene is a registered trademark of Cymetech LLC

CURING SCHEDULE :

<u>Temperature</u>	<u>Handling Strength⁽¹⁾</u>	<u>Minimum Cure Time</u>
77 °F (25 °C)	2 hours	12 hours
110 °F (43 °C)	30 minutes	8 hours
140 °F (60 °C)	15 minutes	90 minutes

⁽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>
Hardness, Shore D (A)	ASTM D-2240	40 (85)
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>		
Aluminum ⁽²⁾	ASTM D-1003	2900 (20)
Telene ⁽³⁾	SAE J1525	980 (6.8)
SMC	SAE J1525	520 (3.6)
<i>Effect of Test Temperature</i>		
(Tested on SMC)		
-40 °F (-40 °C)		550 (3.8)
74 °F (23 °C)		525 (3.6)
180 °F (82 °C)		65 (0.4)

⁽¹⁾ Unless otherwise noted, cured 7 days at 77 °F (25 °C)

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

⁽³⁾ Abraded plus solvent wipe

NOTE :

The test data and result set forth herein are based on laboratory work and/or field testing and does not necessarily indicate results that the buyer or user will attain. Full-scale testing and product performance are the responsibility of the buyer and user.

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

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.

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

Huntsman Advanced Materials warrants only that its products meet the specifications agreed with the user. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications.

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