

**Advanced Materials****Epibond® 1559 Products****EPOXY ADHESIVES**

- Self Extinguishing Adhesives
- Designed for Quick Repairs
- One to One Mix Ratio

**DESCRIPTION :**

Epibond® 1559-A/B and Epibond® 1559-C/D epoxy adhesives are two-part, self-extinguishing pastes. The adhesives exhibit extremely quick set times, even at colder temperatures, making them suitable for fast repairs and other bonding applications. Epibond® 1559 epoxy adhesives bond well to metals, composite laminates, most thermoplastics and dissimilar materials. Handling strength is developed in as little as ten minutes with high strength in one hour. Parts A and B are supplied in contrasting colors so that complete mixing is indicated by a uniform gray color. Parts C and D are both off-white for aircraft interior applications. Epibond® 1559 epoxy adhesives can be used to fabricate or repair aircraft interior parts, which fulfill the FAR 25.853 and O.S.U. requirements when used in conjunction with other low combustible composite components.

**TYPICAL PROPERTIES AS RECEIVED :**

<u>Property</u>	<u>1559-A Resin</u>	<u>1559-B Hardener</u>	<u>1559-A/B System</u>	<u>Test Method</u>
Color	Lt. Blue	Gray	Lt. Gray	Visual
Density, g/cc.	1.20	1.20	1.20	ASTM-D-792
Viscosity, cP at 77°F (25°C)	90,000	80,000	80,000	ASTM-D-2196
Gel time, 50 gms at 77°F (25°C), minutes	--	--	6	ASTM-D-2471
Shelf life at 77°F (25°C), unopened, months	12	12	--	--

**NOTE:** Store material at or above 75°F (23°C). If crystallized, place containers in 120°F (49°C) oven for 15-30 minutes. Allow material to cool to room temperature before mixing.

**MIX RATIO :**

To one part by weight or volume of Epibond® 1559-A or C resin, add one part by weight or volume of Epibond® 1559-B or D hardener.

**CURE SCHEDULE :** Epibond® 1559-A/B and Epibond 1559-C/D: 24 hours at 77°F (25°C) or 30 minutes at 158°F (70°C).

**TYPICAL CURED PROPERTIES** (Not for specification purposes)

<b>Test</b>	<b>Ambient Temperature</b>		<b>Test Method</b>
	<b>77°F (25°C)</b>	<b>45°F (7°C)</b>	
Tensile lap shear, AL/AL, at 77°F (25°C), psi (MPa) after 1 hour	900 (6.2)	--	ASTM-D-1002
after 2 hours	1,245 (8.6)	775 (5.3)	--
after 4 hours	1,668 (11.5)	960 (6.6)	--
after 8 hours	2,670 (18.4)	1,010 (6.9)	--
after 16 hours	2,500 (17.2)	1,230 (8.5)	--
after 24 hours	2,900 (20)	1,260 (8.7)	--
After 14 days at 77°F (25°C), 95% RH	600 (4.1)	--	--
After 24 hours at 77°F (25°C), test at 160°F (71°C) after 30 minute soak	300 (2)	--	--
Flammability, 60 seconds ignition, vertical			FAR 25.853
Self-extinguish time, seconds	2		
Burn length, inches	5		

**STORAGE/  
SHELF LIFE :** Epoxy resins and hardeners should be stored in a dry place in their original, sealed containers at temperatures from 60-100°F (16-38°C). Material temperatures should be above 65°F (18°C) when mixing. After use, tightly reseal containers.

Under these conditions, epoxy resins and hardeners will remain useable for 12 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](mailto: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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