

**Advanced Materials****Epibond® 1559-1A/B and C/D  
Flame Retardant Epoxy Adhesives**

- Self Extinguishing
- Fast time to handling strength and fast curing
- Designed for Quick Repairs
- Does not contain brominated or antimony-based flame retardants.
- Available in both off-white and gray
- Available in 50ml and 200ml cartridges

**DESCRIPTION :**

Epibond® 1559-1A/B and Epibond® 1559-1C/D epoxy adhesives are two-part, self-extinguishing pastes with good peel strength properties. These adhesives were designed with extremely quick set times, even at colder temperatures, making them ideal for fast repairs and other bonding applications. Up to 1,200psi after only one hour at room temperature. Epibond® 1559-1 epoxy adhesives bond well to metals, composite laminates, most thermoplastics and dissimilar materials. Handling strength (50psi) 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® 1559-1 epoxy adhesives can be used to fabricate or repair aircraft interior parts, which fulfill the FAR 25.853, meets requirements of UL 94 V-0 and O.S.U. requirements when used in conjunction with other low combustible composite components.

**TYPICAL PROPERTIES AS RECEIVED:**

<u>Property</u>	<u>1559-1A Resin</u>	<u>1559-1B Hardener</u>	<u>1559-1A/B System</u>	<u>Test Method</u>
Color	Lt. Blue	Gray	Lt. Gray	Visual
Density, g/cc.	1.25	1.25	1.25	ASTM-D-792
Viscosity, cP at 77°F (25°C)	60,000	70,000	--	ASTM-D-2196
Gel time, 50 gms at 77°F (25°C), minutes	--	--	4—10	ASTM-D-2471

**NOTE:** 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® 1559-1A or C resin, add one part by weight or volume of Epibond® 1559-1B or D hardener.

**CURE SCHEDULE:** Epibond® 1559-1A/B and Epibond® 1559-1C/D: 24 hours at 77°F (25°C) or 30 minutes at 158°F (70°C).

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

<b>Test</b>		<b>Test Method</b>
Tensile lap shear, AL/AL, at 77°F (25°C), psi (MPa) after 15 minutes	260 (1.8)	ASTM-D-1002
after 1 hour	1200 (8.2)	--
after 24 hours	2,700 (18.6)	--
After 7 days at 160°F (57°C), 95% RH test at 75°F (23°C)	3500 (24.1)	--
After 7 days at 160°F (57°C), test at 75°F (23°C)	3800 (26.2)	--
T-Peel, AL/AL, at 77°F (25°C), lbf/in	8.1	ASTM-D-1876
Glass transition temperature F (°C)	131 (55.3)	
Flammability, 60 seconds ignition, vertical		FAR 25.853
Self-extinguish time, seconds	1	
Burn length, inches	4	

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**STORAGE:** Epibond® 1559-1 epoxy adhesives should be stored in a dry place, preferably in the sealed original container, at temperatures between +2°C to +40°C (+35.6°F and 104°F). Under these storage conditions the shelf life is 1 year. The product should not be exposed to direct sunlight.

Material temperatures should be above 65°F (18°C) when mixing. After use, tightly reseal containers.

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**PRECAUTIONARY STATEMENT**

Huntsman Advanced Materials Americas LLC 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.

**First Aid!**

Refer to MSDS as mentioned above.

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

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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