

Advanced Materials

Epibond® 420-A/B

STRUCTURAL EPOXY ADHESIVE

- Room-temperature Cure Paste
- Extremely Tough and Resilient

DESCRIPTION :

Epibond® 420-A/B structural epoxy adhesive is a two-component, modified epoxy, room-temperature curing paste with high strength and toughness. It is suitable for a wide variety of metal, honeycomb and fiber-reinforced composite bonding applications requiring high shear strength and good peel strength. Epibond 420-A/B structural epoxy adhesive replaces REDUX 410 NA epoxy adhesive and meets the requirements of BMS 5-107.

TYPICAL PROPERTIES AS RECEIVED :

<u>Property</u>	<u>420-A Resin</u>	<u>420-B Hardener</u>	<u>420-A/B System</u>	<u>Test Method</u>
Color	Yellow	Blue	Blue-green	Visual
Density, g/cc.	1.1	1.0	1.05	ASTM-D-792
Viscosity, cP at 77°F (25°C)	140,000	900	Semi-paste	ASTM-D-2196
Work life, minutes, at 77°F (25°C)	--	70		ASTM-D-1338
Shelf life at 77°F (25°C), unopened, months	12	12	--	--

MIX RATIO :

To 100 parts by weight of Epibond® 420-A resin, add 40 parts by weight of Epibond® 420-B hardener. Mix both components for several minutes until uniform color indicates complete blending. Epibond® 420-A/B epoxy adhesive may also be mixed at 2:1 parts by volume and is available in Accumix™ cartridges with mixing nozzles.

CURE SCHEDULE :

Seven days at 77°F (25°C) or gel at room temperature plus two hours at 140°F (60°C) or 90 minutes at 175°F (79°C) or one hour at 250°F (121°C).

TYPICAL CURED PROPERTIES (Not for specification purposes)

<u>Property</u> (after one hour at 250°F/121°C)	<u>Result</u>	<u>Test Method</u>
Lap shear strength, AL/AL, at 77°F (25°C), psi (MPa)	3500 (24.1)	ASTM D-1002
Insert shear strength, psi (MPa), as cured	1500 (10.3)	BMS 5-107
after 30 days at 140°F (60°C), 95% R.H.	1400 (9.6)	--

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.

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

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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