

Advanced Materials**Epibond[®] 420 A/B Epoxy Adhesive**

- **Structural Applications**
- **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 contains 5 mil (125 µm) spacer beads to provide the very uniform bond line required in high stress areas. 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

Property	Method	420 A Resin	420 B Hardener	420 A/B System
Color	Visual	Yellow	Blue	Blue-green
Density, g/cc	ASTM D792	1.1	1.0	1.05
Viscosity at 77°F (25°C), cP	ASTM D2196	140,000	900	Semi-paste
Work life, at 77°F (25°C), minutes	ASTM D1338	--	--	70

MIX RATIO

To 100 parts by weight of Epibond[®] 420 A resin, add 40 parts by weight of Epibond[®] 420 B hardener. Mix thoroughly for 2-3 minutes to achieve a uniform color. Epibond[®] 420 A/B is available in a 50mL twin cartridge, and for best results should be dispensed using manual or pneumatic dispensing equipment through a suitable mixing nozzle as shown below:

Width/Diameter, in	Number of Elements	Nordson EFD Part #	Sulzer Mixpac Part #
0.20	20	7701830	N/A
0.21	21	7701453	MAH 05-21T

For other mixing and application recommendations, please consult your local Huntsman Advanced Materials representative or one of our distributors.

CURE SCHEDULES

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)

Property (after one hour at 250°F/121°C)	Test Method	Result
Lap shear strength, Al-Al, at 77°F (25°C), psi (MPa)	ASTM D1002	3500 (24.1)
Insert shear strength, psi (MPa)	BMS 5-107	
As cured		1500 (10.3)
As cured + 30 days at 140°F (60°C), 95% R.H.		1400 (9.6)

STORAGE

Epibond® 420 A/B should be stored in a dry place, in the sealed original container, at temperatures between +2°C and +40°C (+35.6°F and 104°F), and not be exposed to direct sunlight. Under these storage conditions, and when supplied under Huntsman standard certification, this product has a shelf life of 1 year from date of shipment (expiration date may differ based on customer specification).

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

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.

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

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