

Advanced Materials**Epocast[®] 1638-A/B****EPOXY SYNTACTIC**

- Quick Set Syntactic
- Self Extinguishing

DESCRIPTION :

Epocast[®] 1638-A/B epoxy syntactic is a low-density compound designed for potting fasteners in honeycomb structures. Epocast[®] 1638-A/B epoxy syntactic meets FAR 25.853 60-second vertical ignition requirements. The epoxy compound is easily extruded through 1/8 in. (3mm) nozzle orifice, but is non-flowing after application. Epocast[®] 1638-A/B epoxy syntactic sets quickly at room temperature and is antimony trioxide-free.

TYPICAL PROPERTIES AS RECEIVED :

<u>Property</u>	<u>1638-A Resin</u>	<u>1638-B Hardener</u>	<u>1638-A/B System</u>	<u>Test Method</u>
Color	Off White	Amber	Off White	Visual
Density, g/cc	0.65	1.00	0.70	ASTM-D-1622
Viscosity, cP at 77°F (25°C)	Paste	400	Paste	ASTM-D-2196
Gel time, 50 gms at 77°F (25°C), minutes	--	--	12-25	ASTM-D-2471
Extrudability, g/min @ RT 1/8 in. (3mm) nozzle	--	--	88	--

MIX RATIO :

To 100 parts by weight of Epocast[®] 1638-A resin, add 13 parts by weight of Epocast[®] 1638-B hardener. Mix both components thoroughly for 2-3 minutes to ensure complete blending.

CURE SCHEDULE :

24 hours at room temperature. The cure may be accelerated with heat for 5 hours at 120°F (49°C) after room temperature gelation.

TYPICAL CURED PROPERTIES (Not for specification purposes)

<u>Test</u>	<u>Result</u>	<u>Modulus</u>	<u>Test Method</u>
	<u>Strength</u>		
Compressive strength/modulus @ 77°F (25°C), Ksi (MPa)			ASTM-D-695
After Cure 8 hours @ 75°F (23°C)	7.27 (50)	300 (2,069)	--
12 hours @ 75°F (23°C)	7.60 (52.4)	322 (2,221)	--
24 hours @ 75°F (23°C)	7.60 (52.4)	360 (2,483)	--
1 hour @ 118°F (50°C)	7.95 (54.8)	364 (2,510)	--
3 hours @ 118°F (50°C)	8.10 (55.8)	386 (2,662)	--
Tensile lap shear, chromic acid etched AL/AL, psi 1002		1.000 (6.9)	ASTM-D-
Weight change, 24 hours immersion at 77°F (25°C), %			ASTM-D-543
Mil-S-3136, Type III test fluid	0.2		--
Mil-M-5606 hydraulic fluid	0.4		--
Skydrol 500A	0.6		--
Distilled water	1.0		--
Flammability, 60 second ignition, vertical			FAR-25.853a
Self-extinguish time, seconds	1		--
Burn length, inches (cm)	3 (7.6)		--
Drip self-extinguishing time, seconds	No drip		--

STORAGE:

Epocast[®] 1638-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). The product should not be exposed to direct sunlight. Under these storage conditions, and when supplied under Huntsman standard certification, this product has a shelf life of 6 months (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

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