

## Epocast<sup>®</sup> 1627-2 Epoxy Syntactic

### Product Description

Epocast<sup>®</sup> 1627-2 Epoxy Syntactic is a filled, high-performance, structural core-reinforcing compound with an extremely low coefficient of thermal expansion, making the material suitable for use in fabricating and reinforcing composite structures. The epoxy syntactic is supplied ready to use (after thawing) as a gray-colored, frozen, 32- or 64-cubic inch (524 or 1049 cm<sup>3</sup>) patty which does not require any weighing or mixing. Epocast<sup>®</sup> 1627-2 Epoxy Syntactic is qualified to BMS 5-28, Type 27.

### Features

- Core reinforcing compound
- High compressive strength

### Typical Properties\*

Property	Test Method	Value
Appearance	Visual	Gray
Density, g/cm <sup>3</sup>	ASTM D1622	1.8
Extrudability, g/min at 77°F (25°C)	BMS 5-28	1000

\*Typical properties are based on Huntsman's test methods. Copies are available upon request.

### Processing

Thaw Epocast<sup>®</sup> 1627-2 for 1.5 to 2 hours at room temperature in its original sealed bag to prevent any contact with condensing humidity. Remove from packaging and apply to desired surface. Thawed Epocast<sup>®</sup> 1627-2 may be used for up to 48 hours depending on ambient temperature and provided that it is protected from moisture at all times. If refrozen, work life will be reduced accordingly.

Mix both components thoroughly for several minutes to assure complete blending. Material temperature should be above 65°F (18°C) just prior to using it.

### Processing Data

Parameter	Value
Work life, at 77°F (25°C), hours	24
Typical Cure Cycles*	1 hour at 350°F (177°C) or
	6 hours at 250°F (121°C) or
	3 - 4 days at 180°F (83°C)

\*Each cure cycle must include 5 - 7°F (3 - 4°C) per minute heat rise from room temperature to cure temperature, holding at cure temperature for designated time, followed by 5 - 7°F (3 - 4°C) per minute heat reduction to 150°F (66°C) or below. Cure temperature refers to temperature of material as determined by thermocouple.

### Typical Physical Properties

Unless otherwise stated, the data were determined with typical production batches using standard test methods. They are typical values only, and do not constitute a product specification.

Property	Test Method	Value
Compressive strength, ksi (MPa) at 77°F (25°C) at 325°F (163°C)	ASTM D695	30.0 (206.9) 3.5 (24.1)
Compressive modulus, ksi (MPa) at 77°F (25°C) at 325°F (163°C)	ASTM D695	1,900 (13,103.4) 60.0 (413.8)
Shrinkage, in/in	ASTM D696	0.002
Coefficient of thermal expansion, in/in/°F (in/in/°C)	ASTM D3386	11.2x10 <sup>-6</sup> (20.2x10 <sup>-6</sup> )
Tensile lap shear strength Al-Al, psi (MPa) at 77°F (25°C) at 325°F (163°C)	ASTM D1002	1,000 (6.9) 500 (3.4)
Absorption after 24 hour immersion at 77°F (25°C), % TT-3-735, Type III MIL-H-5606 hydraulic fluid BMS 3-11, Type IV, Class I Distilled water	--	0.1 0.4 0.4 0.2

### Storage

**Epocast® 1627-2 Epoxy Syntactic** should be stored in a dry place, in the original sealed container at -40°C for a shelf-life of **6 months** (from date of shipment). Shelf-life is **3 months** when stored at 0°F (-18°C). The product should not be exposed to direct sunlight. Tightly reseal container after each use.

## **Precautionary Statement**

Huntsman Advanced Materials Americas LLC maintains up-to-date Safety Data Sheets (SDS) 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 SDS as mentioned above.

**KEEP OUT OF REACH OF CHILDREN**

**FOR PROFESSIONAL AND INDUSTRIAL USE ONLY**

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