

**Advanced Materials****EPOCAST<sup>®</sup> 938-A2****FROZEN, ONE-COMPONENT, EPOXY STRUCTURAL SYNTACTIC****Description**

Epocast<sup>®</sup> 938-A-2 epoxy structural syntactic is a frozen, one-component, flame-retardant compound designed for reinforcing honeycomb structures. Epocast<sup>®</sup> 938-A-2 epoxy syntactic features high compressive strength at temperatures to >350°F (177°C). When thawed, it can be extruded from cartridges as a thixotropic paste. Epocast<sup>®</sup> 938-A2 is qualified to BMS, 5-28, Type 12 (classes 1 and 2) and Type 13; SMS 116201, Type 2; RMS 027, Type X; and others.

**Features**

One-part structural syntactic  
Performs at temperatures of up to >350°F (177°C)  
High compressive strength

**Typical Properties** (as received)

<b>Property</b>	<b>Test Values</b>	
	<b>Epocast<sup>®</sup> 938-A2</b>	<b>Test Method</b>
Color	Off-white	Visual
Density, g/cc	<1.4	ASTM-D-1622
Flow, inches	<0.2	BMS 5-28, RMS 027, SMS 116201
Extrudability, at 77°F (25°C), g/min.	>1,000	BMS 5-28, RMS 027, SMS 116201
Work life, 100 gms at 77°F (25°C), after thaw, hours	18	ASTMD-1338
Shelf life at -20°F (-29°C), from date of manufacture, unopened, days	90	

**Cure Schedule**

Heat the material from room temperature at the rate of 5-7°F per minute, plus 1 hour at 350°F (177°C) or 90 minutes at 250°F (121°C). Cure temperature refers to temperature of material as determined by thermocouple. (Slow heat rise to 5-7°F is preferred to reduce shrinkage and minimize gassing during cure).

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## Handling Characteristics

Extrusion rate varies with thawing method and length of time after thaw. Adjust thawing technique to suit the application. Allow to thaw at room temperature, or cartridges may be thawed in a microwave oven at low power setting, OR thaw 15-30 minutes in a 180°F (82°C) water bath. This will bring material temperature to 120-125°F (49-51°C). Apply with a Semco air-operated sealant gun without nozzle.

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## Typical Cured Properties (Not for specification purposes)

<u>Property</u>	<u>Result</u>	<u>Test Method</u>
Ultimate Compressive strength: Test at 77°F (25°C), Ksi Test at 350°F (177°C), Ksi	>22.0 >13.0	ASTM-D-695
Tg, °F (°C), onset by TMA, using expansion probe	>356 (180)	ASTM-E-1363-90
% Fluid Weight Gain [DI water, Skydrol 500B, MIL-H-5606 hydraulic, ASTM_D_471 reference fuel)	<1.0	ASTM-D-543-87
Flammability, horizontal or vertical	Self-extinguishing	BSS 7230

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## Packaging and Shipping

Epocast® 938-A2 resin is a nonrestricted article.

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**Safety and Handling**

Sanding, grinding, or machining cured material may produce dusts that are irritating to the eyes, skin and respiratory tract. Mechanical ventilation and respiratory protection are recommended when dusts or powders are generated.

**Epocast® 938-A2 Epoxy**

WARNING!

CAUSES SEVERE EYE IRRITATION AND POSSIBLE EYE DAMAGE. CAUSES SEVERE SKIN IRRITATION AND POSSIBLE ALLERGIC SKIN REACTION. HARMFUL IF INHALED. HARMFUL IF SWALLOWED.

Do NOT get in eyes, on skin or clothing. Wear chemical splash goggles and impervious gloves when handling. Wash skin and clothing thoroughly after handling. Avoid breathing vapor or mist. Use only with adequate ventilation. Keep containers closed when not in use. Do NOT take internally.

**First Aid!**

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

**Inhalation:** Remove to fresh air. Seek immediate medical attention.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

**Storage:**

Store at or below -20°F (-29°C) to assure 90-day shelf life.

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**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 888-564-9318 or emailing your request to [advanced\\_materials@huntsman.com](mailto:advanced_materials@huntsman.com).

**KEEP OUT OF REACH OF CHILDREN**

**FOR PROFESSIONAL AND INDUSTRIAL USE ONLY**

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