

Advanced Materials**EPOCAST[®] 938-A2****FROZEN, ONE-COMPONENT, EPOXY STRUCTURAL SYNTACTIC****Description**

Epocast[®] 938-A-2 epoxy structural syntactic is a frozen, one-component, flame-retardant compound designed for reinforcing honeycomb structures. Epocast[®] 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[®] 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)

Property	Test Values	
	Epocast[®] 938-A2	Test Method
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).

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.

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

Packaging and Shipping

Epocast® 938-A2 resin is a nonrestricted article.

Safety and Handling

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!

Swallowing: Dilute by giving 3-4 glasses of water to drink but do not induce vomiting. If vomiting occurs, give water again. Get medical attention. Never give anything to drink to an unconscious or convulsing person.

Skin: Wash affected areas with plenty of water and soap, if available, for several minutes. Get medical attention if irritation occurs.

Inhalation: Remove subject to fresh air. If not breathing, give artificial respiration. Get immediate medical attention. If breathing is difficult, transport to medical care and, if available, give supplemental oxygen.

Eyes: Immediately flush eyes with running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. Get immediate medical attention.

Storage:

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

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.

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

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