

Advanced Materials

EPOCAST[®] 1635-A/B

SYNTACTIC COMPOUND FOR REFILLING MIS-DRILLED HOLES

Description

Epocast[®] 1635-A/B syntactic compound is a two-component, high-performance material designed for refilling mis-drilled holes in composite parts. This aluminum filled, high-viscosity system exhibits outstanding compressive strength and dynamic fatigue resistance under load at elevated temperature. This product is qualified to BMS 5-28, Type 31.

Features

Performs at temperatures of up to 350°F (177°C) High strength Fatigue resistant

Typical Properties (as received)

| Property | <u>1635-A</u> Resin | <u>1635-B</u> Hardener | <u>1635-A/B</u> System | Test Method |
|---|------------------------|---------------------------|---------------------------|-------------|
| Color | Blue-gray | Amber-gray | Blue-gray | Visual |
| Density, g/cc | 1.8 | 1.7 | 1.8 | ASTM-D-1622 |
| Viscosity, cP at 77°F (25°C) | >300,000 | >50,000 | >100,000 | ASTM-D-2196 |
| Gel time, 100 gms at 77°F (25°C), min. | | | >60 | ASTM-D-2471 |
| Extrusion, 80 psig at 77°F (25°C), g/min. | | | >90 | BMS 5-28 |
| Shelf life at 77°F (25°C), unopened, months | 6 | 6 | | |
| Shelf life at 40°F (4°C), unopened, months | 12 | 12 | | |

Test Values

Mix Ratio

To 100 parts by weight of Epocast[®] 1635-A, add 23 parts by weight of Epocast[®] 1635-B (4:1 A to B by volume). Mix both components thoroughly for 3-5 minutes to assure complete dispersion or use 4:1 dual-barrel cartridge, with 6-inch, 20-element mixing nozzle, to dispense.

Cure Schedule

Seven days at 77°F (25°C) or gel at 77°F (25°C) and cure 150 minutes at 200°F (93°C).

Typical Cured Properties (Not for specification purposes)

| Property Tensile lap shear (etched Al/Al): | <u>Result</u> | Test Method |
|---|---------------|---------------|
| Test at 77°F (25°C) after 7days @ 77°F (25°C) or 2.5 hours @ 200°F (93°C), Ksi | 1.5 | ASTM-D-1002 |
| Compressive strength: | | |
| Test at 77°F (25°C) after 7days @ 77°F (25°C), Ksi | 15 | ASTM-D-695 |
| Test at 350°F (177ºC) after 7 days @ 77°F (25ºC), Ksi | 12 | |
| Test at 77°F (25°C) after 2.5 hours @ 200°F (93°C), Ksi | 25 | |
| Test at 350°F (177ºC) after 2.5 hours @ 200°F (93ºC), Ksi | 12 | |
| % Fluid Weight Gain [DI water, BMS 3-11 Ty IV Cl 1 Gr A hydraulic (Skydrol 500B), MIL-PRF-5606 hydraulic, | | |
| TT-S-735 Ty III ref fuel] | <1.0 | ASTM-D-543-87 |

Packaging and Shipping

Epocast[®] 1635-A resin is a nonrestricted article. Epocast[®] 1635-B hardener is a corrosive paste.

Storage

Epocast[®] 1635-A/B should be stored in a dry place, in the sealed original container, at temperatures between +5°C and +25°C (+41°F and 77°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 1 year (expiration date may differ based on customer specification).

Store with adequate ventilation, away from excessive heat, sources of ignition and reactive materials. Do NOT store near food or feed. CORROSIVE to copper and brass during long-term storage.

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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