## Epocast 1618 D/B

Epoxy; Epoxide

**Huntsman Advanced Materials** 

## Message:

DESCRIPTION: Epocast® 1618-D/B epoxy syntactic is a low-density, self-extinguishing compound for potting fasteners in honeycomb structures. The lightweight epoxy is easy to extrude through a 1/8 in.(3mm) nozzle orifice, but is non- flowing after application. Epocast® 1618-D/B epoxy syntactic sets quickly at room temperature and is qualified to BMS 5-28, Type 18, Class 1. It is the suggested alternative for Epocast® 1616-A/B epoxy syntactic, Epocast® 1618-A/B epoxy syntactic, and Epocast® 1620-A/B epoxy syntactic systems.

| General Information                    |                        |       |             |  |  |
|--|------------------------|-------|-------------|--|--|
| Features                               | Low density            |       |             |  |  |
|  | Self-extinguishing     |       |             |  |  |
| Uses                                   | Components             |       |             |  |  |
|  | Aerospace applications |       |             |  |  |
|  | Fasteners              |       |             |  |  |
| Appearance                             | White                  |       |             |  |  |
|  | Amber                  |       |             |  |  |
| Processing Method                      | potting                |       |             |  |  |
| Physical                               | Nominal Value          | Unit  | Test Method |  |  |
| Specific Gravity                       |                        |       | ASTM D1622  |  |  |
| 1                                      | 0.600                  | g/cm³ | ASTM D1622  |  |  |
| 2                                      | 0.700                  | g/cm³ | ASTM D1622  |  |  |
| <sup>3</sup>                           | 1.00                   | g/cm³ | ASTM D1622  |  |  |
| Viscosity                              |                        |       | ASTM D2196  |  |  |
| 25°C <sup>4</sup>                      | Paste                  |       | ASTM D2196  |  |  |
| 25°C <sup>5</sup>                      | Paste                  |       | ASTM D2196  |  |  |
| Flammability                           | Self-extinguishing     |       |             |  |  |
| Gel Time - 57 gms (25°C)               | 15.0                   | min   | ASTM D2471  |  |  |
| Tensile Lap Shear - AL/AL (25°C)       | 4.83                   | MPa   | ASTM D1002  |  |  |
| Weight Gain <sup>6</sup>               |                        |       | ASTM D543   |  |  |
| Distilled water : 25°C                 | 1.5                    | %     | ASTM D543   |  |  |
| Mil-M-5606, hydraulic fluid : 25°C     | 0.40                   | %     | ASTM D543   |  |  |
| Mil-S-3136, Type III test fluid : 25°C | 0.30                   | %     | ASTM D543   |  |  |
| Skydrol 500-A : 25°C                   | 0.60                   | %     | ASTM D543   |  |  |
| Mechanical                             | Nominal Value          | Unit  | Test Method |  |  |
| Compressive Modulus                    | 2410                   | МРа   | ASTM D695   |  |  |
| Compressive Strength (25°C)            | 34.5                   | MPa   | ASTM D695   |  |  |
| Thermoset                              | Nominal Value          | Unit  | Test Method |  |  |

| Thermoset Components  |                             |      |             |  |
|---|-----------------------------|------|-------------|--|
| Resin   | Mixing ratio by weight: 100 |      |             |  |
| Hardening method  | Mixing ratio by weight: 14  |      |             |  |
| Thermoset Mix Viscosity <sup>7</sup> (25°C)   | 400                         | сР   | ASTM D2196  |  |
| Additional Information  | Nominal Value               | Unit | Test Method |  |
| CURE SCHEDULE: 24 hours at room temperature or gel at room temperature plus five hours at 125°F (52°C). |                             |      |             |  |
| NOTE  |                             |      |             |  |
| 1.  | Resin                       |      |             |  |
| 2.  | System                      |      |             |  |
| 3.  | Hardener                    |      |             |  |
| 4.  | System                      |      |             |  |
| 5.  | Resin                       |      |             |  |
| 6.  | on immersion - 24 hrs       |      |             |  |
| 7.  | Hardener                    |      |             |  |

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