

STAR Technology

FORMULATING • INNOVATIVE • SOLUTIONS

ER3102

High Temperature Two Part Epoxy Adhesive / Encapsulant

DESCRIPTION

ER3102 is a two component, elevated temperature cure epoxy adhesive and encapsulation compound modified for resistance to harsh environments and moisture. ER3102 is also toughened for impact resistance. The product has a high mixed viscosity but thins when heated to cure temperatures. Because of its slow reactivity at room temperature, ER3102 may be mixed in large quantities and applied at a leisurely rate. ER3102 may be allowed to harden to a "B" stage overnight at 25°C and then post cured as per the schedule below.

TYPICAL PROPERTIES

| | <u>TEST METHOD</u> | <u>VALUE</u> |
|--|--------------------|-------------------------|
| Gel Time to "B" Stage [100 Gram Mass at 23°C] (minutes): | | 180 |
| Cure Schedule (hours): | | 2 at 80°C + 3 at 170°C |
| Shore D Hardness: | ASTM D2240 | 90 |
| Tensile Strength (psi): | ASTM D638 | 9200 |
| Volume Resistivity (ohms/cm ³): | | 1.9 x 10 ¹⁶ |
| Dielectric Strength (volts/mil): | | 582 |
| CTE (unit/unit/°C): | | 1.53 x 10 ⁻⁶ |
| Tg (°C): | ASTM D3418 | 170 |
| Part A: | | |
| Specific Gravity (g/cc): | ASTM D1475 | 1.75 |
| Viscosity (cps): | ASTM D2393 | High Viscosity Liquid |
| Color: | | Blue |
| Part B: | | |
| Specific Gravity (g/cc): | ASTM D1475 | 1.00 |
| Viscosity (cps): | ASTM D2393 | 300 |
| Color: | | Amber |
| Mixed Product: | | |
| Specific Gravity (g/cc): | ASTM D1475 | 1.55 |
| Viscosity (cps): | ASTM D2393 | 25000 |
| Color: | | Blue |
| Mix Ratio: | | |
| By Weight: | | 100 : 8 |

To the best of our knowledge, the information contained herein is accurate. However, STAR TECHNOLOGY, Inc., does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the sole responsibility of the user. The information contained herein is considered typical properties and is not intended to be used as specifications for our products. This information is offered solely to assist purchaser in selecting the appropriate products for purchaser's own testing. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein and in the material safety data sheet, we cannot guarantee that these are the only hazards that exist. Repeated and prolonged exposure to epoxy resins can cause sensitization or other allergic responses.



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APPLICATION PROCEDURES

Carefully weigh out appropriate amounts of resin and hardener into a clean mixing container and thoroughly mix until all streaks and striations are gone. Scrape the sides and bottom frequently to ensure complete mixing.

For 1# and 2# kits, add all of Part B to Part A and mix thoroughly.

CAUTION: Unmixed compound from the sides or bottom of the container can cause soft spots or uncured areas in the completed piece. To prevent this, transfer the entire mixed contents to a second clean container and remix for a short time before using.

PRECAUTIONS

For industrial use only. Keep away from children.

Refer to the Material Safety Data Sheets (MSDS forms) pertaining to this product before using.

Avoid contact with skin or eyes. In the event of an eye splash or contact, immediately flush with cold water for 15 minutes and contact a physician. If skin contact occurs, wash with mild soap and water. The wearing of safety glasses with side shields and impervious gloves is recommended.

RESIN AND HARDENER WARNING STATEMENT

May cause allergic skin reaction. Avoid all contact with skin, eyes, and clothing. Wash thoroughly after handling.

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