

# STAR Technology

FORMULATING • INNOVATIVE • SOLUTIONS

## ER3107

### Two Part, Clear Epoxy Potting Compound

#### DESCRIPTION

ER3107 is a room temperature cure epoxy potting and encapsulation compound formulated with a low exotherm and long gelation and cure schedules. The Shore D hardness of ER3107 lends its use to include prototype mold making, potting and encapsulation for shock sensitive components, PC board protection and moisture proofing electronic assemblies.

Data contained herein are believed to be reliable. Fit-for-use testing should be conducted by each user.

#### TYPICAL PROPERTIES

	<u>TEST METHOD</u>	<u>VALUE</u>
Gel Time [100 gram mass at 25°C] (minutes):	ASTM D2471	480
Cure [100 gram mass at 25°C] (hours):		72
Maximum Exotherm [100 Gram Mass] (°C):		33
Properties of Cured 1/8" Casting:		
Shore D Hardness:	ASTM D2240	85
Tensile Strength (psi):	ASTM D638	7466
Flexural Strength (psi):	ASTM D790	13000
Flexural Modulus (psi):		450000
Elongation at Break (%):		4.7
Volume Resistivity (ohms/cm <sup>3</sup> ):		1.9 x 10 <sup>16</sup>
Dielectric Strength (volts/mil):		582
Izod Impact Strength (ft-lb/in):		0.41
Tg (°C):	ASTM D3418	127
CTE (unit/unit/°C):		153 x 10 <sup>-6</sup>
Shrinkage (%):		0.28
Part A:		
Specific Gravity (g/cc):	ASTM D1475	1.16
Viscosity (cps):	ASTM D2393	13000
Color:		Clear
Part B:		
Specific Gravity (g/cc):	ASTM D1475	.97
Viscosity (cps):	ASTM D2393	22
Color:		Clear
Mixed Product:		
Specific Gravity (g/cc):	ASTM D1475	1.08
Viscosity (cps):	ASTM D2393	800
Color:		Clear
Mix Ratio:		
By Weight:		100: 55
By Volume:		100: 66

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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