

# STAR Technology

FORMULATING • INNOVATIVE • SOLUTIONS

## ER1005

### Fast Set Epoxy System

#### DESCRIPTION

ER1005 is a "5 Minute Setting" two part, general purpose epoxy adhesive system. ER1005 is used for general purpose repair, laminating and bonding items such as cold rolled steel (CRS), aluminum, ceramic, expanded polystyrene bead board, most thermoplastics, , lauan, Melamine/Formica, Masonite, and plywood. ER1005 is a 100% solids product containing no volatile solvent which might prove irritating to employees. ER1005 can be applied manually when made up in small batches or with a meter/mix applicator. Because of the fast set time of the product, it can be used for structural tacking applications where welding or riveting is impractical. ER1005 is available in 50ml mixpacks, 8 oz kits, 16 oz kits, 1 gallon pails, 5 gallon pails, and 55 gallon drums.

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 75 °F] (minutes):		5
Thin Film Set Time [75 °F] (minutes):		4 - 6
Shore D Hardness (after 40 minutes):		80
Lap Shear [Al to Al] (psi):	ASTM D1002	
30 minutes:		1,100
1 hour:		2,100
2 hours:		2,800
4 hours:		2,800
Tensile Strength (psi):	ASTM D638	8,000
Compression (psi):		10,200
Elongation (%):		5 - 10
Operating Temperature (°C):		-75 to 130
Water Absorption (%):		
24 Hour:		<1
Solids Content (%):		100
Volume Resistivity ( $\Omega$ cm):		$1.27 \times 10^{16}$
Surface Resistivity ( $\Omega$ ):		$2.76 \times 10^{16}$
Dielectric Strength [5 mil thickness] (V/mil):		1484
Part A:		
Viscosity (cps):	ASTM D2393	15,000
Color:		Clear
Part B:		
Viscosity (cps):	ASTM D2393	15,000
Color:		Amber
Mixed Product:		
Viscosity (cps):	ASTM D2393	15,000
Color:		Amber
Mix Ratio:		
By Weight:		1:1
By Volume:		1:1
Shelf Life (months):		12

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.

#### WARNING STATEMENT

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

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