

Technical Bulletin

Description El-Cast 1-F-5 TAB-H is a filled, low cost, one-component epoxy with improved thermal conductivity and heat resistance. This material cures to a rigid form and has good thermal shock, good chemical resistance and the ability to operate at high temperatures while maintaining superior adhesion.

Uses Noise filters, transformers, coils, marine sonar devices, and all applications where heat cure is possible.

Physical Properties @ 22°C

Color:	Black	
Shore "D" Hardness ASTM D2240:	95	
Viscosity Resin:	270,000 cps	
Density Resin:	14.7 wpg	
Specific Gravity, Resin:	1.77	
Tensile Strength:	6,000 psi	
Linear Shrinkage:	2.4×10^{-4} in/in/	
% Elongation:	6.8%	
Compressive Strength:	37,428 psi	
*Glass Transition: (120°C/30'cure)	126°C	
Maximum Use Temperature:	500°F	Temperature Range: -40°F to 500°F
% Moisture Absorption (1 hour Boil)	0.325%	
Coefficient of Thermal Expansion:	16.2×10^{-6} in/in/°F	
Shelf Life:	1 YEAR WHEN STORED	STORE REFRIGERATED
	BELOW 40°F	

Mixing & Cure Instructions

+ NOTE: Due to its high purity, the El-Cast 1-F-5 Resin may thicken in viscosity. To thin, heat to 80°F - 120°F in an OPEN container, then material should be used within 24 hours.

*Pot Life 100 gram Mass, Room Temp. (72°F) N/A

Cure Schedule, 2" Dia. X 3/4" Thick

*Cure Time @ 22°C N/A

*Cure Time 200°F for 1 hour (smaller parts 220°F for 20 Minutes)

For best results, post cure at 325°F overnight.

*These times will change depending on volume and temperature.

Electrical Properties

Volume Resistivity, Applied voltage: 500 VDC @ 1 min. Ele. per ASTM D257	13×10^{16}
Dielectric Constant, Test frequency: 1 MHz per ASTM D150	4.88
Dielectric Strength, Oil rate of rise(short time): 500 V/S per ASTM D149	550
Dissipation Factor, Test frequency: 1 MHz per ASTM D150	0.025
Thermal Conductivity, BTU-in./hr.-ft ² -°F per ASTM C177	10.00

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