

Low shrinkage during cure

0176 is a one-component, gray, high strength, electrically insulative, precision mixed, degassed, and frozen epoxy. It features low shrinkage during cure, bonds well to most substrates, and works as gap filler or staking material. 0176 can be cured at room or elevated temperatures and is available in either an Appli-Pac® or precision mixed, degassed, and frozen syringes. The material meets NASA outgassing at multiple cure temperatures.

UNCURED	
Viscosity @ 25°C	55,000 cPs
Pot Life @ 25°C	1.25 hours
Shelf Life	12 months @ 25°C (Appli-Pac®) 6 months @ -40°C (Cryo-Pac®) 10 months @ -60°C (Cryo-Pac®)
CURE OPTIONS	24 hours @ 25°C 8 hours @ 45°C 2 hours @ 71°C
CURED PROPERTIES	Based on cure of 2 hours @ 71°C
Color	Gray
Shore D Hardness	70
Glass Transition Temp (°C)	23
Lap Shear 2024T3 Clad (psi)	3,500
% Shrinkage Linear	0.9
ELECTRICAL PROPERTIES	Based on cure of 2 hours @ 71°C
Dielectric Constant	3.4 @ 1000 Hz
Dissipation Factor	0.05 @ 1000 Hz
Volume Resistivity (ohm-cm)	1.0E 15 @ 500 VDC
OUTGASSING PROPERTIES	Based on cure of 24 hours @ 25°C
TML (%)	0.77
CVCM (%)	0.01
WVR (%)	0.22
OUTGASSING PROPERTIES	Based on cure of 8 hours @ 45°C
TML (%)	0.75
CVCM (%)	0.01
WVR (%)	0.22
OUTGASSING PROPERTIES	Based on cure of 2 hours @ 71°C
TML (%)	0.63
CVCM (%)	0.02
WVR (%)	0.25
ACOUSTIC PROPERTIES	
Velocity (m/s)	2,420
Impedance (MRayles)	3.254
Loss (dB/cm-MHz)	-7.3
Density (g/cc)	1.35

KEY FEATURES

Bonds Well to Most Substrates

Electrically Isolating

Meets NASA Outgassing at Multiple Cure Temps.

Low Shrinkage

Room or Elevated Temperature Cure

User-friendly Packaging

Chat with a specialist:

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