APPLI-TEC
THERMOSET ADHESIVE SOLUTIONS
ISO 9001 / AS9100 CERTIFIED

0176 Epoxy

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 is 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
THERMAL PROPERTIES	Based on cure of 2 hours @ 71°C
CTE below Tg (ppm/°C)	59.4
CTE above Tg (ppm/°C)	134.6
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

KEY FEATURES

- Bonds Well to Most Substrates
- Electrically Isolating
- Ideal for Bonding & Staking
- Meets NASA Outgassing at Multiple Cure Temps.
- Low Shrinkage
- Room or Elevated Temperature Cure
- User-friendly Packaging
- √ RoHS Compliant

Chat with a specialist:

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Rev H **1/17/2025**

WVR (%)	0.25
ACOUSTIC PROPERTIES	
Velocity (m/s)	2,420
Impedance (MRayls)	3.254
Loss (dB/cm-MHz)	-7.3
Density (g/cc)	1.35