

Key Features

Thixotropic
Electrically Insulative
Flexible
Hydrolytic Stability
Long Pot Life
Low Glass Transition Temperature
Low Modulus
Meets NASA Outgassing Requirements
Solvent Resistant
Fungus Resistant

Uncured

Work Life @ 25°C: 1.5 hours
Viscosity @ 25°C: 45,000 cPs
Thixotropic Index: 3.0
Shelf Life @ -40°C: 6 Months
Shelf Life @ -60°C: 9 Months

Cure Options

2.5 hours @ 66°C
7 days @ 25°C

Cured Properties

(Based on cure of 2.5 hours @ 66°C)

Color	Translucent
Shore A Hardness	65
Glass Transition Temp (°C)	-74
Density (g/cc)	1.0
Lap Shear 2024T3 Clad (psi)	500
Tensile Strength (psi)	625
Tensile Modulus (psi)	400
Elongation (%)	90
Fungus Resistance	Non-nutrient

Electrical Properties

(Based on cure of 2.5 hours @ 66°C)

Dielectric Constant	3.5 @ 10 kHz
Dielectric Constant	3.1 @ 100 kHz
Dielectric Constant	2.9 @ 1 MHz
Dissipation Factor	0.08 @ 10 kHz
Dissipation Factor	0.06 @ 100 kHz
Dissipation Factor	0.05 @ 1 MHz
Dielectric Strength (volts/mil)	1,220
Volume Resistivity (ohm-cm)	2.2E 13 @ 500 VDC

Product Description:

Appli-Thane[®] 7800 is a 100% solids, translucent, thixotropic, precision mixed, degassed, and frozen polyurethane adhesive compound for advanced electronic assembly. Appli-Thane[®] 7800 was designed specifically to have a 3-4 times longer pot life, half the cure time and 4 times longer shelf life than standard aerospace urethanes. This thixotropic compound is suitable for electronic bonding, staking, and may be used as a fillet as well. Appli-Thane[®] 7800 cures to a flexible material with low modulus and a very low Glass Transition Temperature (Tg). The cured material's ability to not crack or harm bonded rigid components during thermal cycling is a major plus. Appli-Thane[®] 7800 passes NASA outgassing requirements and provides strain relief for many staking and bonding applications where thermal conductivity is not required.

Thermal Properties

(Based on cure of 2.5 hours @ 66°C)

CTE below Tg (ppm/°C)	80
CTE above Tg (ppm/°C)	200
Glass Transition Temp (°C)	-74
Operating Temp. Range (°C)	-100 to 125
Thermal Conductivity (W/mK)	0.3

Outgassing Properties

(Based on cure of 2.5 hours @ 66°C)

TML (%)	0.43
CVCM (%)	0.01
WVR (%)	0.17

Acoustic Properties

Velocity (m/s)	1,616
Impedance (MRayles)	1.60
Loss (dB/cm-MHz)	-6.9
Density (g/cc)	1.0

The data contained herein is provided for informational purposes only and are believed to be reliable. APPLI-TEC does not guarantee suitability of this product for any resultant application or freedom from patent infringement. Furthermore, APPLI-TEC disclaims any liability for incidental and consequential damages of any kind including but not limited to lost profits.