

A low modulus, high strength material - Ideal for staking components

Because they are hard and high modulus after cure, many aerospace epoxy systems will fail when exposed to extreme thermal cycling and vibration environments. Designed as replacement material for these systems, Appli-Thane® 7340 is an easy-to-use polyurethane. It won't harm, bend or break highly fragile substrates, such as glass and ceramic, when exposed to vibration and extreme thermal cycling. A thixotropic, thermally conductive compound, Appli-Thane® 7340 passes NASA's outgassing requirements and is suitable for electro-optics bonding and staking and may be used as a fillet as well.

UNCURED	
Work Life @ 25°C	1.5 hours
Viscosity @ 25°C	Paste
Shelf Life @ -40°C	6 Months
CURE OPTIONS	1.5 hours @ 74°C + 72 hours @ 25°C 7 days @ 25°C
Color	Dark Gray
Shore A Hardness	92
Shore D Hardness	45
Glass Transition Temp (°C)	-70
Density (g/cc)	2.3
Lap Shear 2024T3 Clad (psi)	1,300
Tensile Strength (psi)	900
Tensile Modulus (psi)	7,500
Elongation (%)	20
Storage Modulus (psi)	4,000
Linear Shrinkage (%)	0.04 cured 192hours @ 22°C 0.14 cured 8 hours @ 71°C
ELECTRICAL PROPERTIES	1.5 hours @ 74°C + 72 hours @ 25°C
Dielectric Constant	5.3 @ 10 kHz 5.1 @ 100 kHz 4.9 @ 1 MHz
Dissipation Factor	0.032 @ 10 kHz 0.028 @ 100 kHz 0.023 @ 1 MHz
Dielectric Strength (volts/mil)	480
Volume Resistivity (ohm-cm)	1.0E 15 @ 500 VDC
THERMAL PROPERTIES	1.5 hours @ 74°C + 72 hours @ 25°C
CTE below Tg (ppm/°C)	50
CTE above Tg (ppm/°C)	121
Glass Transition Temp (°C)	-70
Operating Temp. Range (°C)	-100 to 125
Thermal Conductivity (W/mK)	1.0
OUTGASSING PROPERTIES	Based on cure of 1.5 hours @ 74°C

KEY FEATURES

Thixotropic

Thermally Conductive

Electrically Insulative

Semi-flexible

Superior Thermal Cycling

Hydrolytic Stability

Long Pot Life

Low Glass Transition Temperature

Low Modulus

Meets NASA Outgassing Requirements

Solvent Resistant

Low Shrinkage During Cure

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Rev H

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TML (%)	0.13
CVCM (%)	0.01
WVR (%)	0.05
ACOUSTIC PROPERTIES	
Velocity (m/s)	1,437
Impedance (MRayles)	3.36
Loss (dB/cm-MHz)	-13.2
Density (g/cc)	2.3