

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.

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| 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 192 hours @ 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
- ✓ RoHS Compliant

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