

Appli-thane™ 7801

Key Features

Free Flowing
Electrically Insulative
Flexible
Hydrolytic Stability
Long Pot Life
Low Glass Transition Temperature
Low Modulus
Solvent Resistant

Uncured

Work Life 4 hrs Viscosity 4,100 cps Shelf Life 6 Months @ < -40° C

Recommended Cure

1.5 hrs. @ 71° C

Other Cure

o.5 hrs. @ 92° C

Cured Properties

Color Light Amber
Shore A Hardness 65
Glass Transition Temp (° C) -11
Density (g/cc) 1.1
Lap Shear 2024T3 Clad (psi) 1,000

Electrical Properties

Dielectric Constant3.8 @ 10 kHzDielectric Constant3.1 @ 100 kHzDielectric Constant2.8 @ 1 MHzDissipation Factor0.08@ 10 kHzDissipation Factor0.06@ 100 kHzDissipation Factor0.05@ 1 MHz

Dielectric Strength (volts/mil) 550

Volume Resistivity (ohm-cm) 1.0E 13@ 500 VDC

Product Description:

Appli-thane[™] 7801 was designed to have 3-4 times longer pot life, half the cure time and 4 times longer shelf life than standard urethane systems. Appli-thane[™] 7801 is a 100% solids, toughened, light amber, free flowing polyurethane adhesive compound for advanced electronic assembly. This unfilled compound utilizes capillary flow to draw the adhesive under the component for under fill applications. Appli-thane[™] 7801 cures to a flexible state with low modulus and 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.

Thermal Properties

CTE below Tg (ppm/°C) 45
CTE above Tg (ppm/°C) 165
Glass Transition Temp (°C) -11
Operating Temp. Range (°C) -80 to 125
Thermal Conductivity (W/m°K) 0.2

Acoustic Properties

Velocity (m/s)1975Impedance (MRayles)2.15Loss (dB/cm-MHz)-8.75Density (g/cc)1.1

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