DATASHEET

NTP-1 Medium Pitch Anisotropic Conductive Film (ACF)

btechcorp has invented and patented a process for aligning high density fibers through the thickness of a polymer matrix… up to 20 million fibers per square inch.

High conductivity metallic fibers provide a continuous path through the thickness of the film, thus avoiding the particle-to-particle contact problem of filled adhesives.

NTP-1 Medium Pitch Anisotropic Conductive Film (ACF) adhesive is currently being qualified for a variety of applications, including:

- plastic solar panel Z-axis interconnect
- low cost microwave PCBs
- large area lead-free solder
- PET substrate circuit lamination

NTP-3 Properties

Electrical Resistance	Z-axis: 0 microhms (1.0 cm^2, 100µ thick) X-Y plane: >20 megaohm
Z-Axis Connection Density	200µ pitch
Z-Axis Thermal Resistance	<0.20 ^0C-cm^2/W (100µ thick bond)
Coefficient of Thermal Expansion	Z-Axis: 15 ppm/^0C X-Y plane: 45ppm/^0C
Young's Modulus	<10 Ksi (0.06 GPa)
Ionic Purity	Hydrolyzable Chloride <5 ppm Hydrolyzable Sodium <2ppm
Operating Temperature	4^0K to 90 ^0C

Processing

Product Form Film pre-form for reel supply. 2-8 mils (0.05-0.20mm) thick, +/- 0.1 mil
Cure Cycle 50 psi bond compression (<3 sec) at 125 ^0C (resin temperature)
Storage Life 6 months at 27 ^0C (80 ^0F)

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