



DUPONT™ TEMPRION™ EIF N SERIES

ELECTRICALLY INSULATING FILM

DESCRIPTION

DuPont™ Temprion™ EIF N Series is a flexible laminate film comprising an electrically insulating, puncture resistant Kapton® MT+ polyimide core coated with a high temperature stable, thermally conductive elastomer coating on one or both sides.

Temprion™ EIF features Kapton® MT+ polyimide as a carrier to achieve best-in-class thermal performance for an electrically insulating film, where electrically isolating components within a package is critical to operation.

APPLICATIONS

- Conventional Power Modules
- Discrete Power Devices
- Power Supplies

FEATURES

- Electrical insulation
- High temperature stability
- Low thermal resistance
- High puncture resistance
- UL 94 flammability rating (pending)
- RoHS Compliance

Table 1 – Typical Properties of DuPont™ Temprion™ EIF N Series Electrically Insulating Film

Property	NA037057D						Test Method
Total Thickness, mil (mm)	6 (0.15)						ASTM D374
Reinforcement Carrier	Kapton® 150MT+						–
Continuous Use Temp, °F (°C)*	-4 to 437 (-20 to 225)						–
Shore Hardness-A Scale**	75						ASTM D2240
Thermal Conductivity, W/m•K	1.20						ASTM D5470
Thermal Performance vs. Pressure							
Pressure, psi (MPa)	14.5 (0.1)	43.5 (0.30)	72.5 (0.5)	101.5 (0.7)	130.5 (0.9)	159.5 (1.1)	
Thermal Impedance, °C•in ² /W (°C•cm ² /W)	0.35 (2.30)	0.26 (1.65)	0.22 (1.45)	0.21 (1.35)	0.20 (1.29)	0.19 (1.26)	
Breakdown Voltage, Vac	> 6000						ASTM D149
Volume Resistivity, Ω•cm	> 10 ¹²						ASTM D257
Flammability	Pending						UL-94
RoHS Compliant	Yes						–

*High temperature range of continuous temperature usage determine by thermogravimetric analysis (24 h analysis).

**Shore hardness was measured on the elastomer coating

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