

APICAL® L50S10PL



APICAL® Polyimide possesses an excellent balance of Physical, Thermal, Electrical and Chemical properties over a wide range of temperatures (-269°C [-452°F] to 400°C [752°F]). More precise thickness control, superior web flatness, plus improved adhesion and excellent dimensional stability are standard features with APICAL® Polyimide film.

Applications

- Aircraft Wire and Cable
- Magnet Wire
- Traction Equipment
- Down Hole Motors
- Mining Equipment

Characteristics

- Improved Bond/Peel Strengths
- Ideal Elongation
- Optimal Flexibility
- Excellent Dielectric Properties

Typical Properties for L50S10PL

Apical® Fluoropolymer Coated Polyimide Film **Electroimide®**

Mechanical	
Property	L50S10PL
Tensile Strength MD, kpsi	26
% Elongation to break MD	103
Heat Seal Strength FP-PI, g/in @ 350°C, 20sec, 20psi	1600
Specific Gravity, g/cm ³	1.79
Yield, ft ² /lb	90.50
Yield, g/m ²	60.35
Thickness, mil (microns) – total	1.5 (38.1)
Thickness, mil (microns) Polyimide AV	1.00 (25.4)
Thickness, mil (microns) FP	0.50 (12.7)

Thermal	
Property	L50S10PL
Melt Point of FP, °C	270
Flammability, UL rating	V-0
UL Relative Thermal Index, Electrical, °C	240
UL Relative Thermal Index, Mech., °C	210

Electrical	
Property	L50S10PL
Dielectric Strength, V/mil	5200
Dielectric Constant @ 1kHz	2.7
Dissipation Factor @ 1kHz	0.0035
Volume Resistivity, Ohm-cm	> 10 ¹⁶
UL Hot Wire Ignition rating	0
UL High Voltage Arc Tracking	4
UL D495 rating	7
UL Comparative Tracking Index	3
UL High Current Arc Ignition rating	4

Chemical	
Property	L50S10PL
Moisture Absorption, water soak, % 24hrs	1.6
Hydroscopic Coefficient of Expansion, ppm / % RH	9

The data noted in these technical data sheets are given as examples and are not intended to be read as guaranteed values.

Safety Precautions

Before using the laminated film **read the MSDS supplied** and the “**Guide to Safe Handling of Fluoropolymer resins**” which can be found online.

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