

APICAL® P50A10



APICAL® Polyimide possesses an excellent balance of Physical, thermal, electrical and chemical properties over a wide range of temperature (-269°C to 400°C). More precise thickness control, superior web flatness, plus improved adhesion and excellent dimensional stability are standard features with APICAL Polyimide. This Laminated version of Apical has a thermal stability up to 260°C.

Characteristics

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

Applications

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

Construction

Items	Mils	Microns
Nominal Thickness	1.50	38.1
FP	0.50	12.7
PI	1.00	25.4

Mechanical Properties

Items	Typical Values	Test Method
Tensile Strength MD, kpsi (MPa)	25 (174)	ASTM D882
Tensile Strength TD, kpsi (MPa)	24 (164)	ASTM D882
Tensile Modulus MD, kpsi (GPa)	279 (1.9)	ASTM D882
Tensile Modulus TD, kpsi (GPa)	291 (2.0)	ASTM D882
Elongation MD (TD), %	110 (103)	ASTM D882

Thermal Properties

Items	Typical Values	Test Method
Heat Shrinkage MD %	0.09	200°C – 2 hrs
Heat Shrinkage TD %	0.04	200°C – 2 hrs
Heat Seal Strength, FEP-FEP, g/inch (g/cm) 20psi	1500 (591)	350°C, 20sec,

Electrical Properties

Items Method	Units	Test
Dielectric Strength, kV/mil	4.9	ASTM D149

Physical Properties

Items Method	Units	Test
Water Absorption, % 2.6.2	2.6	IPC-TM650-
Density, g/cm ³ D1505	1.60	ASTM
Yield, ft ² /lb (m ² /kg)	81 (16)	

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

KANEKA NORTH AMERICA APICAL DIVISION

6161 UNDERWOOD ROAD
PASADENA, TEXAS 77507
800-222-8128 FAX 800-562-5284

www.kaneka.com

KANEKA