

APICAL® T55N10



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 coated 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	1.98	50.3
FP	0.5	12.7
PI	0.98	24.9
FP	0.5	12.7

Mechanical Properties

Items	Typical Values	Test Method
Tensile Strength MD, kpsi (MPa)	21 (146)	ASTM D882
Tensile Strength TD, kpsi (MPa)	22 (153)	ASTM D882
Tensile Modulus MD, kpsi (GPa)	314 (2.2)	ASTM D882
Tensile Modulus TD, kpsi (GPa)	327 (2.3)	ASTM D882
Elongation MD (TD), %	79 (75)	ASTM D882

Thermal Properties

Items Method	Typical Values	Test
Heat Shrinkage MD %	0.07	200°C – 2 hrs
Heat Shrinkage TD %	0.02	200°C – 2 hrs
Heat Seal Strength,		

FEP-FEP, ginch (g/cm) 20psi	1600 (636)	350°C, 20sec,
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Electrical Properties

Items Method	Units	Test
Dielectric Strength, KV/mil D149	4.0	ASTM

Physical Properties

Items Method	Units	Test
Water Absorption, % 2.6.2	1.4	IPC-TM650-
Density, g/cm ³ D1505	1.76	ASTM
Yield, ft ² /lb (m ² /kg)	55 (11)	

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

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