

DuPont™ Kapton® 150FCRC019

Product Description

DuPont™ Kapton® corona resistant film is a state-of-the-art polyimide film that withstands the damaging effects of corona discharge. The corona resistance provides improved service life and operational efficiencies versus conventional insulation materials.

Kapton® 150FCRC019 is a composite film consisting of Kapton® 100CRC corona resistant polyimide film and a heat fusible FEP fluoropolymer film. In addition to the corona resistant property, Kapton® FCRC offers excellent, physical, electrical, thermal, and chemical resistant characteristics expected with Kapton® polyimide films.

Kapton® 150FCRC019 has been developed for use as a magnet wire insulation in rail traction, industrial motors and generators where there is a need for enhanced insulation life under partial discharge environments.

Kapton® FCRC may also be used in other electrically insulating applications where partial discharge may occur.

Characteristics

- Corona resistant film
- Heat fusible adhesive
- High dielectric strength
- Reduced thickness versus mica laminates

Applications

- Magnet wire
- Traction motors: rail, auto, mining
- Industrial motor insulation
- Wind, hydro generators
- ESP motors
- High temperature
- High reliability
- Aerospace and specialty wires

Table 1 - Typical Physical Properties of DuPont™ Kapton® 150FCRC019 Polyimide Film

Property	Unit	Typical Value	Test Method
Thickness	mil	1.5	ASTM D374
	µm	38	
Tensile Strength	kpsi	26	ASTM D882
	MPa	179	
Elongation	%	79	ASTM D882
Tensile Modulus	kpsi	420	ASTM D882
	GPa	2.9	
Dielectric Strength	V/mil	4400	ASTM D149
	kV/mm	173	
315 °C Heat Seal Strength	gms/in	1100	DuPont Test Method
	gms/cm	433	
Yield	ft ² /lb	78	-
	m ² /kg	16	
Density	g/cc	1.74	ASTM D1505
Results Below - polyimide film data only			
Dielectric Constant @ 1 kHz	-	3.4	ASTM D150
Dissipation Factor @ 1 kHz	-	0.002	ASTM D150
Volume Resistivity	ohm-cm	>10 ¹⁶	ASTM D257
UL Electrical RTI	°C	240	UL 746B
UL Mechanical RTI	°C	200	UL 746B
Flammability	UL-94	V-0	UL Test Method



For more information on DuPont™ Kapton® or other DuPont products, please visit our website.

kapton.com

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