



The shrinkable Mylar®/Nomex® End Caps insulate and secure electrical connections in electric motors and other applications. They have a high dielectric strength and impact resistance and are also suitable for demanding applications in temperature class F. They can also withstand temperatures of up to 160°C for short periods. By attaching End Caps, short circuits caused by wire residues can be avoided. They are mainly used in the windings of encapsulated and open electric motors.

Mylar® / Nomex® End Caps, Shrinkable, Class F (155°C)

Technical Data

Properties

- Cost-effective insulation of wire ends in lacquer-impregnated electric motors of temperature class F
- Material: DuPont™ Mylar®
- Reliable fixation due to shrinkage of 35%.
- Available with inner diameters from 2.50 mm to 65 mm and wall thicknesses from 0.240
- Fast shrinking within 10 seconds.
- Excellent dielectric strength and
- Structure made from a five-ply composite of Dupont™ Mylar® and Nomex®
- The foil is UL approved.
- Resistant to most oils and refrigerants.
- Suitable for applications in temperature class F at
- Continuous temperatures of 155°C.

Outer Lamina:

Electrical Properties			
Properties of Base Film	Typical Value	Test Condition	Test Method
	37.5 HS film (37 µm)		
Dielectric strength [kV]	> 3.5		ASTM D 149

Physical Properties			
Properties of Base Film	Typical Value	Test Condition	Test Method
	37.5 HS film (37 μm)		
Tensile Strength			
MD (Mpa)	190	Machine Direction (MD)	ASTM D 882
TD (Mpa)	260	Transverse Direction (TD)	ASTM D 882
Yield [m2/kg]	19.10		
Modulus [Mpa]	2,100	MD	ASTM D 882
	3,600	TD	ASTM D 882
Elongation [%]	170	MD	ASTM D 882
	110	TD	ASTM D 882
Water Vapour Transmission Rate [g/m2/24 hrs]	15	38°C, 90% Relative Humidity	ASTM F 1249
Oxygen Permeability [cm3/m2/24 hrs]	75	Before shrinkage	ASTM D 3985
	30-45	After shrinkage	ASTM D 3985

Optical Properties		
Properties of Base Film	Typical Value	Test Method
Melt Point	253-255°C (526-528K)	ASTM D 3148-82

Inner Lamina: DuPont™ Nomex® Grade 411

Electrical Properties				
Property of Base Material	Material Thickness		Test Condition	Test Method
	0.130 mm	0.180 mm		
Dielectric Strength [kV/mm]	12	12	AC Rapid Rise	ASTM D 149
Dielectric Constant	1.3	1.3	103 Hz	ASTM D 150
Dissipation Factor	0.005	0.005	103 Hz	ASTM D 150

Physical Properties			
Property of Base Material	Typical Value	Test Condition	Test Method
Tensile Strength			
MD [N/cm]	17	28	ASTM D 828-60
TD [N/cm]	9	17	ASTM D 828-60
Elongation			
MD [%]	3.5	3.5	ASTM D 828-60
TD [%]	4.8	5	ASTM D 828-60

Item number:

Example: IESMN0100/005/0050

IESMN = master number

0100 = 1.00 mm inner diameter

005 = 0.05 mm wall thickness

0050 = 50 mm inner length (without protrusion)