



TECHNICAL DATA SHEET

416NMN555 - 416 Nomex® / PET / 416 Nomex® Class H 180°C Insulation

A composite laminate of type 416 Nomex® meta-aramid fiber sandwiched between two electrical grade PET polyester films, bonded by a high temperature structural adhesive system.

PRODUCT ATTRIBUTES

- Excellent thermal stability and electrical properties
- High tear, tensile, and burst strength
- Excellent moisture and chemical resistance
- UL 1446 180°C recognized insulation system, file E60273

PRODUCT APPLICATIONS

- Slot and phase insulation for motors and generators
- Layer and ground insulation for Class H dry type transformers

REPRESENTATIVE PHYSICAL PROPERTIES		
PROPERTY	VALUE	TEST METHOD
NOMINAL THICKNESS , inches	0.016	ASTM D374
YIELD		
Square yards per pound	1.24	
Pounds per Square Yards	0.81	
DIELECTRIC STRENGTH (Volts – 2" electrodes)	15,000	ASTM D149
DIELECTRIC CONSTANT (23°C, 50% RH, 60 Hz)	3.2	ASTM D150
TENSILE STRENGTH (psi)		
Machine Direction (MD)	240	ASTM D828
Cross Machine Direction (XMD)	185	
GRAVES TEAR STRENGTH (lbs)		
Machine Direction (MD)	28	ASTM D1004
Cross Machine Direction (XMD)	22	
DISSIPATION FACTOR (23°C, 50% RH, 60 Hz)	0.005	ASTM D150
VOLUME RESISTIVITY (Ohm-cm) (23°C, 50% RH)	10 ¹⁵	ASTM 257-66
SURFACE RESISTIVITY (Ohm) (23°C, 50% RH)	10 ¹⁵	ASTM-257-66

STORAGE

- Shelf life: one (1) year
- Store in a clean area free from exposure to excessive heat, moisture or direct sunlight (50°F to 80°F).

Product performance will vary in each application and is dependent upon composite construction. Arlon Innovations does not guarantee the replication of this data by third parties. None of the data or statements contained herein is intended to warrant the performance of this product. Data is representative and not intended as a manufacturing specification.