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TECHNICAL DATA SHEET

416NMN232AFR2 - AFR / 416 Nomex® / PET / 416 Nomex® / AFR
Class H 180°C Insulation

A flexible composite insulation composed of type 416 Nomex® meta-aramid paper and electrical grade PET film laminated with a high temperature structural adhesive system. This product is coated on both sides with an acrylic flame retardant thermosetting (b-stage) adhesive.

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	0.009	ASTM D374
YIELD Square yards per pound Pounds per Square Yards	 0.34 2.98	
DIELECTRIC STRENGTH (Volts – 2" electrodes)	12,000	ASTM D149
TENSILE STRENGTH (psi) Machine Direction (MD) Cross Machine Direction (XMD)	 120 87	ASTM D828
90° PEEL ADHESION (lbf) (copper, German Wheel)	2.70 (exceeds strength of Nomex)	
PRESSING PARAMETERS Temperature (°F) Time (minutes) Pressure (psi)	 310 30 25 - 75	
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

Lamination parameters are intended as guidelines only. Arlon Innovations strongly recommends that each manufacturer optimize the lamination parameters to each specific application.

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.

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