Arlon Innovations 210.798.1900
6110 Rittiman Road 800.549.9860
San Antonio, TX 78218 arloninnovations.com

TECHNICAL DATA SHEET

NKN555 - 410 Nomex® / Kapton® / 410 Nomex®
Class R 220°C Insulation

A flexible composite insulation composed of type 410 Nomex® meta-aramid paper and Kapton® polyimide film laminated with a high temperature structural adhesive system. Polyimide films have extremely low off-gassing characteristics for use in aerospace and medical applications.

PRODUCT ATTRIBUTES

- Excellent thermal stability and electrical properties
- High tear, tensile, and burst strength
- Excellent moisture and chemical resistance
- UL 1446 220°C and recognized insulation system, file E60273

PRODUCT APPLICATIONS

- Flexible circuit materials
- Power distribution
- Heating elements
- Electrical cables

REPRESENTATIVE PHYSICAL PROPERTIES

PROPERTY	VALUE	TEST METHOD
NOMINAL THICKNESS, inches	0.015	ASTM D374
YIELD Square Yards per Pound Pounds per Square Yard	 1.23 0.50	
DIELECTRIC STRENGTH (Volts – 2" electrodes)	24,000	ASTM D149
DIELECTRIC CONSTANT (23°C, 50% RH, 60 Hz)	2.6	ASTM D150
TENSILE STRENGTH (psi) Machine Direction (MD) Cross Machine Direction (XMD)	 300 275	ASTM D828
GRAVES TEAR STRENGTH (lbs) Machine Direction (MD) Cross Machine Direction (XMD)	 12 11	ASTM D1004
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.

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