Alamotape
6110 Rittiman Road
San Antonio, TX 78218

210.798.1900
800.549.9860
alamotape.com

TECHNICAL DATA SHEET

NKN333 - 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	0.009	ASTM D374
YIELD Square Yards per Pound Pounds per Square Yard	 2.38 0.42	
DIELECTRIC STRENGTH (Volts – 2" electrodes) **DIELECTRIC CONSTANT** (23°C, 50% RH, 60 Hz)	 16,500 3.2	 ASTM D149 ASTM D150
TENSILE STRENGTH (psi) Machine Direction (MD) Cross Machine Direction (XMD)	 170 125	ASTM D828
GRAVES TEAR STRENGTH (lbs) Machine Direction (MD) Cross Machine Direction (XMD)	 10 9	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. Alamotape 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.