

## Flexible Insulation

### NKN - Nomex<sup>®</sup> / Kapton<sup>®</sup> / Nomex<sup>®</sup>

#### GENERAL

The polyimide film contributes high dielectric, tear and tensile strengths. The calendared aramid paper protects the film from mechanical damage, provides formability and a good surface for adhesion of varnish.

NKN triplex laminates is constructed of calendared aramid (Nomex) paper, bonded with polyimide film (Kapton) using a specialized bonding system.

#### APPLICATIONS

The laminates are suitable for use as slot, phase and end turn insulation as well as ground and wrapper insulation in dry type transformers

#### THERMAL

These polyimide and aramid paper laminates are suitable for continuous operation at 220°C.

#### PROPERTIES

Product	Thickness Nominal (mm)	Product Yield		Dielectric Strength (volts)	Volume Resistivity (ohms-cm)	Surface Resistivity (ohms / square)	MD Tensile Strength (kG/M width)	XD Tensile Strength (kG/M width)	MD Tear Strength (kG)	XD Tear Strength (kG)
		M2 / kG	kG / M2							
NKN 2-1-2	0.1524	1.92	0.52	9,000	10 <sup>15</sup>	10 <sup>13</sup>	5.60	3.36	2.73	2.27
NKN 2-2-2	0.1778	1.54	0.65	14,000	10 <sup>15</sup>	10 <sup>13</sup>	6.83	4.54	3.64	2.73
NKN 3-1-3	0.2032	1.47	0.68	10,000	10 <sup>15</sup>	10 <sup>13</sup>	6.72	4.09	4.09	2.73
NKN 3-2-3	0.2286	1.27	0.79	17,000	10 <sup>15</sup>	10 <sup>13</sup>	8.40	5.60	4.55	4.09
NKN 3-3-3	0.254	1.06	0.94	19,000	10 <sup>15</sup>	10 <sup>13</sup>	9.52	6.72	5.45	4.55
NKN 3-5-3	0.2794	0.86	1.16	20,000	10 <sup>15</sup>	10 <sup>13</sup>	10.64	7.84	6.82	5.00
NKN 5-1-5	0.2794	0.99	1.01	13,000	10 <sup>15</sup>	10 <sup>13</sup>	10.64	7.84	2.73	2.27
NKN 5-2-5	0.3048	0.92	1.09	18,000	10 <sup>15</sup>	10 <sup>13</sup>	12.32	6.72	6.82	4.55
NKN 5-3-5	0.3302	0.81	1.23	21,000	10 <sup>15</sup>	10 <sup>13</sup>	14.56	10.08	9.55	6.36
NKN 5-5-5	0.4064	0.67	1.49	25,000	10 <sup>15</sup>	10 <sup>13</sup>	18.48	12.32	11.82	7.27