

Material Data Sheet

- Item:** Nomex™* Polyester Nomex
- Description:** Nomex™ Polyester Nomex is a series of composites consisting of Type 416 Nomex™ aramid paper bonded to both sides of polyester film with a high temperature adhesive system.
- Application:** Primary ground insulation in rotating electrical apparatus operating at 180 C° (355 F°) and above. It is especially suited to slot cell applications in motors and generators in the integral horsepower range where sheet insulation is normally used. Nomex™ Polyester Nomex may also be used as top sticks/wedges in selected applications.
- Benefits:** The outer plies of the aramid paper provide smooth, abrasion-resistant surfaces for ease of insertion in slot cell and wedge applications. The excellent high temperature capabilities of the Nomex™ protects the polyester film from premature thermal degradation. Type 416 aramid paper exhibits good resistance to puncture and tear propagation, as well as outstanding hot cut-through resistance.
- The polyester film inner ply provides high dielectric strength for high pot safety, excellent resistance to tear initiation, and a high impact break strength to reduce the likelihood of splitting at slot overhangs.
- The composite structure blends the benefits of these engineering materials into a tough, flexible electrical insulation material, exhibiting the stiffness and snapback characteristics necessary in motor and generator applications.

*Nomex™ is a registered trademark of E.I. Du Pont de Nemours & Company, Inc.

- Availability:**
- | | |
|------------------------|---|
| Material Forms: | Master Rolls: 3" I.D. Core
36" Wide
500 - 900 Yards |
| | Slit Coils: 3" I.D. Core
.375" Minimum Width |
| | Sheets: 36" x 36"
24" x 24"
Custom Sheeting Per Customer Requirements |
| | Shapes: Custom Fabrication Per Customer Requirements. |

Material Data Sheet

Item: Nomex™* Polyester Nomex

Availability:	Thicknesses:	Total	(Composition - mils)		
			<u>Mat</u>	<u>Film</u>	<u>Mat</u>
		.010"	3	3	3
		.012"	3	5	3
		.016"	3	9	3
		.020"	3	14	3
		.013"	5	3	5
		.015"	5	5	5
		.020"	5	10	5

<u>Catalog</u> <u>Number</u>	<u>Composition (mils)</u> <u>Polyester</u>			<u>Nominal</u> <u>Thickness</u> <u>(Inches)</u>	<u>Yield</u> <u>(SYD/Lb.)</u>
	<u>Mat</u>	<u>Film</u>	<u>Mat</u>		
XPX-333	3	3	3	.0095	2.1
XPX-353	3	5	3	.0115	1.6
XPX-393	3	9	3	.0155	1.1
XPX-3143	3	14	3	.0205	0.8
XPX-535	5	3	5	.0135	1.45
XPX-5105	5	10	5	.0205	0.9

<u>Dielectric</u> <u>Breakdown</u> <u>Voltage</u>	<u>Tensile</u> <u>Strength</u>		<u>Tear</u> <u>Strength</u>	
	<u>MD</u>	<u>CD</u>	<u>MD</u>	<u>CMD</u>
12,500	155	120	14	12
15,500	185	160	20	15
19,500	250	220	30	25
20,000	340	280	40	35
15,000	240	160	20	15
20,000	345	265	35	30

All of the information, suggestions, and recommendations pertaining to the properties and uses of the products herein are based upon tests and data believed to be accurate; however, the final determination regarding the suitability of any material described herein for the use contemplated, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty, expressed or implied, including, without limitation warranty of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.