



Flexible Composite Materials

Nomex® Combined Flexible Materials

Materials	Unit	N416/M/N 2/1/3	N416/M/N 2/2/3	N416/M/N 2/3/3	N416/M/N 2/4/3	N416/M/N 2/5/3	N416/M/N 2/7/3	N416/M/N 2/10/3	N416/M/N 2/14/3
Total Thickness	mm	0.16	0.18	0.20	0.23	0.25	0.32	0.38	0.49
Thickness tolerance	%	± 10	± 10	± 10	± 10	± 10	± 10	± 10	± 10
Weight per unit area ±12%	g/m ²	168.2	206.1	241.0	276.05	311.04	402.04	486.0	626.04
Yield ±	m ² /kg	5.94	4.85	4.15	3.62	3.21	2.45	2.057	1.60
Outer layer :Nomex®		416	416	416	416	416	416	416	416
Nomex® 416+464 thickness	mil (mm)	2+3 (0.127)	2+3 (0.127)	2+3 (0.127)	2+3 (0.127)	2+3 (0.127)	2+3 (0.127)	2+3 (0.127)	2+3 (0.127)
Inner layer material		PET	PET	PET	PET	PET	PET	PET	PET
Film thickness	mil (mm)	1 (0.025)	2 (0.05)	3 (0.076)	4 (0.10)	5 (0.13)	7 (0.18)	10 (0.25)	14 (0.35)
Tensile strength M.D.	N/cm	180	200	240	270	280	360	420	550
Elongation M.D.	% (min)	30	30	30	30	30	30	30	30
Dielectric strength unfolded	kV	6	10	12	14	16	18	20	30

Testing Stanard : IEC 626-2 under *Conditioning* Standard atmosphere 23/50

Insulation System : Class F (155C); H (180C); N (200C) and R (220C) in accordance with UL 1446, system available in P.Leo Electrical Insulation System for above materials.

FCM® is an insulating materials obtained by laminating a polyester (PET) film with one sheet of paper aromatic/polyamidic fibres based calandered (Nomex®). A thermo-resistant resin ensures the perfect bonding.

Nomex® 416 & 464 with good mechanical resistance and an excellent resistance to the high temperatures; PET film is very resistant to the tearing; the combination of the two materials enables FCM to get high performances when both mechanical or thermal stress occurs.

FCM® is produced in several types and thicknesses; the most important is, our Nomex® laminates containing 5 mils of Nomex® type 416 3mil and/or 464 2mil are ground and Interwinding Insulation in P.Leo N86 and R81, R82 system.

Size available : 914mm (approx.) in width per roll.

Remark : The above value, which has been determined by careful tests, provide only general information. P. Leo has implemented several programs to assure the highest quality and reliability of this product. However, no responsibility is assumed for its use.



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