Flexible Composite Materials

Nomex® Combined Flexible Materials

Materials	*Unit*	*N464/M/N 2/1/2*	*N464/M/N 2/2/2*	*N464/M/N 2/3/2*	*N464/M/N 2/4/2*	*N464/M/N 2/5/2*	*N464/M/N 2/7/2*	*N464/M/N 2/10/2*	*N464/M/N 2/16/2*
Total Thickness	mm	0.13	0.15	0.19	0.22	0.24	0.31	0.37	0.47
Thickness tolerance	%	± 10	± 10	± 10	± 10	± 10	± 10	± 10	± 10
Weight per unit area ±12%	g/m²	138.2	176	211	246	281	372	456	596
Yield ±12%	m²/kg	7.24	5.68	4.74	4.07	3.56	2.69	2.19	1.68
Outer layer :Nomex®		464	464	464	464	464	464	464	464
Nomex® thickness	mil (mm)	2 (0.05)	2 (0.05)	2 (0.05)	2 (0.05)	2 (0.05)	2 (0.05)	2 (0.05)	2 (0.05)
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)	16 (0.4)
Tensile strength M.D.	N/cm	100	140	160	180	220	280	330	400
Elongation M.D.	% (min)	17	20	20	20	20	22	22	25
Dielectric strength unfolded	kV	6	9	10	14	16	18	20	28

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 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 or uncalandered (Nomex®). A thermo-resistant resin ensures the perfect bonding.
Nomex® 410 416 & 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 ones (one sheet of Nomex®) are listed in the above table.

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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