



# Flexible Composite Materials

## Nomex® Combined Flexible Materials

Materials	Unit	N464/M 2/1	N464/M 2/2	N464/M 2/3	N464/M 2/4	N464/M 2/5	N464/M 2/7	N464/M 2/10	N464/M 2/14
<b>Total Thickness</b>	mm	0.08	0.11	0.13	0.16	0.18	0.25	0.31	0.41
<b>Thickness tolerance</b>	%	± 10	± 10	± 10	± 10	± 10	± 10	± 10	± 10
<b>Weight per unit area ±12%</b>	g/m <sup>2</sup>	85	123	158	193	228	319	403	543
<b>Yield ±12%</b>	m <sup>2</sup> /kg	11.7	8.13	6.33	5.18	4.39	3.13	2.48	1.84
<b>1<sup>st</sup> layer :Nomex®</b>		464	464	464	464	464	464	464	464
<b>Nomex® thickness</b>	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)
<b>2nd layer material</b>		PET	PET	PET	PET	PET	PET	PET	PET
<b>Film thickness</b>	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)
<b>Tensile strength M.D.</b>	N/cm	60	90	120	150	180	240	300	340
<b>Elongation M.D.</b>	% (min)	17	17	17	17	20	20	25	25
<b>Dielectric strength unfolded</b>	kV	5	8	11	14	16	18	20	29

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

**Insulation System : Class F (155C); H (180C) and N (200C) 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/polyamic 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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