Carbex inside

NM HYPERTHERM F

Slot insulation Nomex Mylar (NM equiv. Hypertherm F) is a two-ply insulation laminate of calendered Nomex and polyester film. An ideal material for slot insulation in electric motors and generators for applications with higher working temperatures. The material is also suitable for transformers and other electrical applications.

- ***In thicknesses 110 – 450 µm (80 µm on request)***
- ***Supplied in widths up to ca 900 mm, slit widths, cut and punched parts***
- ***Very good electrical properties and mechanical properties***
- ***Approved for insulation class F (+155°C) or for insulation systems which comply with IEC-norms up to +180°C***

PRODUCT INFORMATION

Slot insulation Nomex Mylar (NM equiv. Hypertherm F) is a two-ply insulation laminate of calendered Nomex and polyester film. The structure provides a combination of good electrical, mechanical and thermal properties.

Typical applications

Electrical insulation primarily slot insulation of electric motors and generators, but also suitable for use as insulation in dry transformers and other electrical apparatus

Properties

- Approved for insulations class F (+155°C) or for insulation systems which comply with IEC norms up to +180°C
- Highly suitable for automatic installation of slot insulation
- Very good electrical properties
- Very good mechanical properties regarding tear strength and resistance to abrasion
- Very good durability
- Can be punched or cut

Composition

- Nomex Mylar consists of a laminate comprising of one layer calendered Nomex (aramid paper) and a layer of polyester film. The base layer material, Nomex, is manufactured in thicknesses 50 µm, 80 µm, 130 µm and 180 µm. The products are also available with varying thicknesses of polyester film (see technical data). A specially developed synthetic adhesive bonds the laminate into a unit whilst retaining inherent properties even when used in the material's higher temperature range.

Colour

- Usually pale white

Dimensions

- We offer Nomex Mylar as a standard material in thicknesses 110 - 450 µm (some manufacturers offer Nomex Mylar from 80 µm (on request))
- Standard trimmed widths 450mm and 900mm
- Can be slit to desired widths up to max 900mm
- Can be punched or cut to desired form or shape. In the case of die-cutting a die tool is required (tools available at low costs)

Packaging

- Standard packaging width 450 mm in rolls of ca 5 kg* (certain thicknesses available for immediate delivery, see item list)
- Standard packaging width 900 mm depending on item in rolls of 25-30 kg* (depending on item, certain thicknesses held in stock) (see item list)
- Other slit-to-width dimensions on MOQ in kg on request

NM HYPERTHERM F

Item Number	Name /Grade	Dimensions			Weight ca (kg)/ rulle	Weight g/m² (nom.)	Length ca (m)/ roll	Stock item (usually)
		Thickness (mm)/tol	Width (ca mm)	Innerdia. (mm)				
030620018	NM/ 2/5	0.18 +/- 12%	450	76	5	230	48	X
030620022	NM/ 3/5	0.22 +/- 12%	450	76	6	255	52	X
030620028	NM/ 3/7,5	0.28 +/- 12%	450	76	6	340	39	X
030620034	NM/ 3/10	0.34 +/- 12%	450	76	6	420	32	
030629018	NM/ 2/5	0.18 +/- 12%	900	76	25	230	120	
030629022	NM/ 3/5	0.22 +/- 12%	900	76	30	255	130	X
030629028	NM/ 3/7,5	0.28 +/- 12%	900	76	25	340	82	
030629034	NM/ 3/10	0.34 +/- 12%	900	76	25	420	66	

Product information for which Carbex bears no responsibility is provided by the manufacturer.

NM HYPERTHERM F

Technical data

NomexMylar (NM), Hypertherm F
(similar data for other makes)
Italics indicates data obtained for corresponding

Properties	*Standard*	*Value*	*Value*	*Value*	*Value*	*Value*	*Value*	*Value*	*Value*	*Enhet*
Nominal thickness (ca)	IEC-626	110	130	180	250	310	410	140	160	µm
Mechanical										
Thickness Nomex		50	50	50	50	50	50	80	80	µm
Thickness polyester film		50	75	125	190	250	350	50	75	µm
Name/thickness (Grade)		2/2	2/3	2/5	2/7.5	2/10	2/14	3/2	3/3	D/M/D
Weight/m² (nominal)		125	160	230	320	390	550	155	190	g/m²
Tensile strength (tests made for spec. dim.)					230	280				N/10mm (min)
Elongation MD (tests made for spec. dim.)		*20*	*20*	*20*	20	20		*15*		% (min)
Thermal										
Electrical insulation classs		F / 155	F / 155	F / 155	F / 155	F / 155	F / 155	F / 155	F / 155	klass /°C
Electrical										
Dielectric strength kV (min) (surge at 21°C		*8*	*12*	*ca 14*	15	18	*ca 25*	*9*		kV (min)

Properties	*Standard*	*Value*	*Value*	*Value*	*Value*	*Value*	*Value*	*Value*	*Enhet*
Nominal thickness (ca)	IEC-626	220	280	340	440	330	400	450	µm
Mechanical									
Thickness Nomex		80	80	80	80	130	130	180	µm
Thickness polyester film		125	190	250	350	190	250	250	µm
Name/thickness (Grade)		3/5	3/7.5	3/10	3/14	5/7.5	5/10	7/10	D/M/D
Weight/m² (nominal)		255	340	420	565	390	480	535	g/m²
Tensile strength (tests made for spec. dim.)			230	280			270	230	N/10mm (min)
Elongation MD (tests made for spec. dim.)			20	20			10	8	% (min)
Thermal									
Electrical insulation class		F / 155	F / 155	F / 155	F / 155	F / 155	F / 155	F / 155	klass /°C
Electrical									
Dielectric strength kV (min) (surge at 21°C)		*ca 15*	16	18			20	22	kV (min)

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