



## POLYESTERFILM MYLAR A

*Polyester film Mylar A is a flexible, strong and durable film with unusually well balanced properties which make it suitable for many industrial applications. The combination of good electrical, mechanical and thermal properties make the film an ideal insulation material for motors, generators and transformers.*

- Manufactured in thicknesses 12 – 500 µm
- Supplied in roll widths up to 1000 mm, slit widths, cut, punched and die-cut parts
- Mylar A from DuPont is our standard grade
- Very good electrical and mechanical properties
- Good thermal properties. Approved for insulation class B (+130°C)
- Very good durability

## PRODUCT INFORMATION

**Polyester film Mylar A is a tough film for general applications, electrical as well as industrial, that require a broad range of good properties.**

### Typical applications

Electrical insulation such as insulation of motors generators and transformers, including slot insulation where demands for toughness and durability are decisive, and as insulation barriers within the areas of electronics/power electronics, etc. However, applications also span a much wider spectra ranging from shirt collar inserts to drum skins.

### Properties

- Approved for insulation Class B (130°C) in electrical applications
- Max working temperature (recommended) +150°C
- Test data accessible -70°C to +200°C
- Melting point 254°C
- Very good dielectric properties
- Very good mechanical properties
- Very low moisture absorbency
- Very good durability. Material does not become brittle over time because it does not contain plasticizers.
- Can be easily formed and shaped, both hot and cold
- Can be punched or cut
- We have selected Mylar A as a standard film to ensure the highest quality. Experience has shown Mylar A to be very resistant to tearing when fixing coil ends with yarn in automatic machinery and installations.
- Flammability class in accordance with UL94, see UL-file #E93687

### Composition

- A polyester film consisting of thinly stretched Polyethylene Terephthalate (PET) to obtain its good properties.

### Colour

- Transparent with some "cloudiness" to almost milky white, depending on the thickness (see technical data)

### Dimensions

- Mylar A is manufactured in thicknesses 12 - 500 µm
- Supplied in standard widths of 500mm alt. 914 mm (some items in widths of 900 mm see item list)
- Can be slit to desired widths up to ca 1000 mm
- 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)
- We also offer slit-to-width polyester film in fringed executions

### Packaging

- Standard packaging width 500 mm in rolls of ca 6 kg and ca 30 kg
- Standard packaging width 900 mm in rolls of ca 30 kg
- Other slit widths on MOQ in kg on request
- Punched and die-cut items: volume MOQ by agreement (with die tool or cut)
- \* Other weights on request

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





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Item Number /Grade	Name	Dimensions			Weight (kg)/	Weight g/m <sup>2</sup>	Length ca (m)/	Stock item (usually)
		Thickness (mm)/tot.	Width (mm)	Internal (mm)	roll	(nom.)	roll	
030400023	Polyesterfilm Mylar A	0.023 +/- 10%	500	76	6	32	375	
030400050	Polyesterfilm Mylar A	0.050 +/- 10%	500	76	6	70	171	
030400075	Polyesterfilm Mylar A	0.075 +/- 10%	500	76	6	104	115	
030400100	Polyesterfilm Mylar A	0.100 +/- 10%	500	76	6	139	86	X
030400125	Polyesterfilm Mylar A	0.125 +/- 10%	500	76	6	174	69	X
030409125	Polyesterfilm Mylar A	0.125 +/- 10%	900	76	30	174	192	
030400190	Polyesterfilm Mylar A	0.190 +/- 10%	500	76	6	264	45	X
030450019	Polyesterfilm Mylar A	0.19 +/- 10%	500	76	30	264	227	
030409190	Polyesterfilm Mylar A	0.190 +/- 10%	900	76	30	264	126	
030400250	Polyesterfilm Mylar A	0.250 +/- 10%	500	76	6	348	34	X
030450025	Polyesterfilm Mylar A	0.25 +/- 10%	500	76	30	348	172	
030400350	Polyesterfilm Mylar A	0.350 +/- 10%	500	76	6	487	25	X
030400500	Polyesterfilm Mylar A	0.500 +/- 10%	500	76	6	695	17	

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### Technical data

#### Polyester film Mylar A

Properties	Standard	Value	Value	Value	Value	Value	Value	Value	Value	Unit
<b>Thickness</b>		12	15	19	23	30	36	50	75	µm
<b>Mechanical</b>										
Thickness tolerance		10	10	10	10	10	10	10	10	+/- %
Density	ASTM D 1505	1,390	1,390	1,390	1,390	1,390	1,390	1,390	1,390	g/cm <sup>3</sup>
Weight/m <sup>2</sup> (ca at nominal thickness)		17	21	26	32	42	50	70	104	g/m <sup>2</sup>
Tensile strength MD/XMD	ASTM D 882	200/220	200/220	210/230	210/230	230/260	230/260	190/210	190/200	N/mm <sup>2</sup>
Flexural modulus of elasticity	ASTM D 882	4200/4200	4200/4200	4200/4300	4100/4300	4100/4300	4100/4300	3800/4100	3800/4000	N/mm <sup>2</sup>
Elongation MD/XMD	ASTM D 882	100/100	110/100	110/110	130/110	120/100	130/110	140/120	140/120	%
Shrinkage at 150°C/30 min MD/XMD1	ASTM D 1204	1.5/0	1.3/0	1.3/1	1.3/1	2.5/1.7	2/1.7	1.2/1.1	1.1/1	%
Shrinkage at 200°C/30 min MD/XMD	ASTM D 1204	4.5/1.5	4/1	4/3	4/3	8/7	7/6.5	2.8/2.5	2.5/2.3	%
Haze acc. to Gardner Hazemeter	ASTM D 1003	5	7	11	15	20	22	29	36	%
<b>Thermal</b>										
Max working temperature (recommended)		150	150	150	150	150	150	150	150	°C
Electrical insulation class		B / 130	B / 130	B / 130	B / 130	B / 130	B / 130	B / 130	B / 130	klass /°C
Melting point		254	254	254	254	254	254	254	254	°C
<b>Electrical</b>										
Dielectric strength	ASTM D 149	2.5	2.7	3	4	4.8	5.5	7.7	10	kV (min)

Properties	Standard	Value	Value	Value	Value	Value	Value	Value	Unit
<b>Thickness</b>		100	125	190	250	300	350	500	µm
<b>Mechanical</b>									
Thickness tolerance		10	10	10	10	10	10	10	+/- %
Densitet	ASTM D 1505	1,390	1,390	1,390	1,390	1,390	1,390	1,39	g/cm <sup>3</sup>
Weight/m <sup>2</sup> (ca at nominal thickness)		139	174	264	348	417	487	695	g/m <sup>2</sup>
Tensile strength MD/XMD	ASTM D 882	190/200	180/200	190/220	190/200	190/200	190/190	150/170	N/mm <sup>2</sup>
Flexural modulus of elasticity	ASTM D 882	3700/3900	3600/3800	3300/3700	3100/3500	3000/3200	2950/3200	2600/2800	N/mm <sup>2</sup>
Elongation MD/XMD	ASTM D 882	150/120	150/130	190/140	210/170	210/180	240/200	270/240	%
Shrinkage at 150°C/30 min MD/XMD	ASTM D 1204	1.1/1	1.1/1	1.3/1.3	1.3/1.3	1.3/1.3	1.3/1.3	0.9/0.9	%
Shrinkage at 200°C/30 min MD/XMD	ASTM D 1204	2.5/2.3	2.5/2.3	3.5/3.3	3.5/3.3	3.5/3.5	3.5/3.3	2/1.7	%
Haze acc. to Gardner Hazemeter	ASTM D 1003	39	43	82	90	92	96	97	%
<b>Thermal</b>									
Max working temperature (recommended)		150	150	150	150	150	150	150	°C
Electrical insulation class		B / 130	B / 130	B / 130	B / 130	B / 130	B / 130	B / 130	klass /°C
Melting point		254	254	254	254	254	254	254	°C
<b>Electrical</b>									
Dielectric strength	ASTM D 149	11.75	13.5	17.5	19	19.5	20	20	kV (min)

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