DuPont Teijin Films™

MYLAR® EL

Product Description

Mylar® EL films, typically 48 through 500 gauge are strong, tough, general -purpose films for electrical/electronic uses. Heavier gauges of Mylar® EL films are similar to Mylar® MO films. Available in grades from clear to hazy, Mylar® EL films offer chemical inertness, good dielectrics, high temperature durability, and good handling characteristics.

General Product Info

The superior electrical, mechanical, thermal, and chemical inertness characteristics of Mylar® type EL films make them ideally suited for electrical and electronic applications.

Special Features

Slit rolls are available in the following ID and OD configuration:

- 3" ID 9 1/2" OD, 48 - 500 gauge
- 3" ID 13" OD, 48 - 500 gauge
- 3" ID 16" OD, 48 gauge only
- 3" ID 18" OD, 92 - 500 gauge
- 6" ID 11" OD
- 6" ID 14" OD
- 6" ID 16 1/2" OD
- 6" ID 18" OD

Master rolls are available as shown in the Standard Put-Ups table. They are splice free and are available in selected widths in minimum order quantities of 35,000 lb per order with a minimum of 10,000 lb per item.
Note: 10% of the 48 and 75 gauge Master rolls may have one splice.

Typical Applications

The outstanding strength, flexibility, and electrical properties of Mylar® type EL films make them well suited for many electrical and electronics applications. The good handling and winding characteristics make them especially suitable for coating, die cutting, embossing, and laminating operations.

Approvals

UL 94 VTM-2 - for 92 - 500 gauge (0.023 - 0.13mm)

Typical Properties

Available Thickness [Gauge]
48; 75; 92; 142; 200; 300; 400; 500

Property	Thickness	Value	Units	Test
ELECTRICAL				
Dielectric Strength	48	2.8	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
Dielectric Strength	75	3.5	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air

Dielectric Strength	92	4.0	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
Dielectric Strength	142	5.5	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
Dielectric Strength	200	7.7	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
Dielectric Strength	300	10.0	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
Dielectric Strength	400	11.7	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
Dielectric Strength	500	13.5	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
OPTICAL				
Haze	48	4	%	ASTM D1003
Haze	75	15	%	ASTM D1003
Haze	92	16	%	ASTM D1003
Haze	142	18	%	ASTM D1003
Haze	200	24	%	ASTM D1003
Haze	300	29	%	ASTM D1003
Haze	400	37	%	ASTM D1003
Haze	500	43	%	ASTM D1003
PHYSICAL				
Elongation at Break MD	48	110	%	ASTM D882A
Elongation at Break MD	75	110	%	ASTM D882A
Elongation at Break MD	92	110	%	ASTM D882A
Elongation at Break MD	142	125	%	ASTM D882A
Elongation at Break MD	200	135	%	ASTM D882A
Elongation at Break MD	300	135	%	ASTM D882A
Elongation at Break MD	400	140	%	ASTM D882A
Elongation at Break MD	500	140	%	ASTM D882A
Elongation at Break TD	48	70	%	ASTM D882A
Elongation at Break TD	75	90	%	ASTM D882A
Elongation at Break TD	92	90	%	ASTM D882A
Elongation at Break TD	142	100	%	ASTM D882A
Elongation at Break TD	200	110	%	ASTM D882A
Elongation at Break TD	300	110	%	ASTM D882A
Elongation at Break TD	400	115	%	ASTM D882A
Elongation at Break TD	500	115	%	ASTM D882A
Tensile Strength MD	48	26	kpsi	ASTM D882A
Tensile Strength MD	75	28	kpsi	ASTM D882A
Tensile Strength MD	92	28	kpsi	ASTM D882A
Tensile Strength MD	142	28	kpsi	ASTM D882A
Tensile Strength MD	200	28	kpsi	ASTM D882A
Tensile Strength MD	300	27	kpsi	ASTM D882A
Tensile Strength MD	400	26	kpsi	ASTM D882A
Tensile Strength MD	500	27	kpsi	ASTM D882A
Tensile Strength TD	48	32	kpsi	ASTM D882A
Tensile Strength TD	75	34	kpsi	ASTM D882A
Tensile Strength TD	92	34	kpsi	ASTM D882A
Tensile Strength TD	142	34	kpsi	ASTM D882A
Tensile Strength TD	200	33	kpsi	ASTM D882A
Tensile Strength TD	300	31	kpsi	ASTM D882A
Tensile Strength TD	400	30	kpsi	ASTM D882A
Tensile Strength TD	500	30	kpsi	ASTM D882A
Yield (nominal)	48	41,300	in²/lb	
Yield (nominal)	75	26,500	in²/lb	
Yield (nominal)	92	21,800	in²/lb	
Yield (nominal)	142	14,000	in²/lb	
Yield (nominal)	200	9,900	in²/lb	
Yield (nominal)	300	6,600	in²/lb	
Yield (nominal)	400	5,000	in²/lb	
Yield (nominal)	500	4,000	in²/lb	
THERMAL				
Shrinkage MD (150°C)	48	2.0	%	Unrestrained @ 150°C/30 min
Shrinkage MD (150°C)	75	2.0	%	Unrestrained @ 150°C/30 min

Shrinkage MD (150°C)	92	1.9	%	Unrestrained @ 150°C/30 min
Shrinkage MD (150°C)	142	1.5	%	Unrestrained @ 150°C/30 min
Shrinkage MD (150°C)	200	1.3	%	Unrestrained @ 150°C/30 min
Shrinkage MD (150°C)	300	1.2	%	Unrestrained @ 150°C/30 min
Shrinkage MD (150°C)	400	1.1	%	Unrestrained @ 150°C/30 min
Shrinkage MD (150°C)	500	1.1	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	48	1.0	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	75	1.1	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	92	1.1	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	142	1.0	%	Unrestrained @ 130°C/30 min
Shrinkage TD (150°C)	200	0.8	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	300	0.8	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	400	0.7	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	500	0.7	%	Unrestrained @ 150°C/30 min

Standard Put-ups

Core I.D. (Inches)	Roll O.D. (Inches)	Thickness (Gauge)	Length (Feet)
3	9 1/2	48	10,500
3	9 1/2	75	6,700
3	9 1/2	92	5,400
3	9 1/2	142	3,500
3	9 1/2	200	2,500
3	9 1/2	300	1,650
3	9 1/2	400	1,250
3	9 1/2	500	1,000
10 (Master roll)		48	63,000
10 (Master roll)		75	59,000
10 (Master roll)		92	47,700
10 (Master roll)		142	30,600
10 (Master roll)		200	21,950
10 (Master roll)		300	14,650
10 (Master roll)		400	10,980
10 (Master roll)		500	8,850

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Disclaimer

Note: These values are typical performance data for DuPont Teijin Films' polyester film; they are not intended to be used as design data. We believe this information is the best currently available on the subject. It is offered as a possible helpful suggestion in experimentation you may care to undertake along these lines. It is subject to revision as additional knowledge and experience is gained. DuPont Teijin Films makes no guarantee of results and assumes no obligation or liability whatsoever in connection with this information. This publication is not a license to operate under, or intended to suggest infringement of, any existing patents.

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