DuPont Teijin Films™

MARIAN
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MYLAR® EL21

Product Description
Mylar® EL21 polyester films are flexible strong and durable films with an unusual balance of properties, making them suitable for a variety of industrial applications. The excellent dielectric strength, moisture resistance, and physical toughnes make Mylar® EL21 a very versatile and functional insulating material.

General Product Info
Mylar® EL21 films offer high dielectric strength, good chemical resistance, and exceptional durability in high-temperature enviroments.

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

- 3" ID 13" OD
- 3" ID 16" OD
- 3" 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.

Typical Applications
Mylar® type EL21 films, similar to Mylar® type MO films, are heavy gauge insulating films designed for general purpose electrical/electronic applications, such as transformers, laminates, bus bars, and punched parts.

Approvals
UL 94 VTM-2 - for 92-1400 gauge(0.023-0.35 mm)
UL Recognition - for 92-500 gauge (0.023-0.13mm) HWI=5, HAI=4, CTI=1;
for 700-1400 gauge (0.18-0.35mm) HWI=4, HAI=0, CTI=1

Typical Properties

Available Thickness [Gauge]
750; 900; 1000; 1400

Property	Thickness	Value	Units	Test
ELECTRICAL				
Dielectric Strength	750	17.5	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
Dielectric Strength	900	18.4	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
Dielectric Strength	1000	19.0	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
Dielectric Strength	1400	20.0	kV	ASTM D149 1/4" electrode 500 V/sec 25°C in air
OPTICAL				
Opacity	750	38	%	optical density
Opacity	900	41	%	optical density
Opacity	1000	42	%	optical density
Opacity	1400	46	%	optical density
PHYSICAL				
Density	750	1.3928	g/cc	
Density	900	1.3920	g/cc	
Density	1000	1.3925	g/cm3	
Density	1400	1.3925	g/cc	

Elongation at Break MD	750	140	%	ASTM D882A
Elongation at Break MD	900	150	%	ASTM D882A
Elongation at Break MD	1000	150	%	ASTM D882A
Elongation at Break MD	1400	170	%	ASTM D882A
Elongation at Break TD	750	115	%	ASTM D882A
Elongation at Break TD	900	130	%	ASTM D882A
Elongation at Break TD	1000	140	%	ASTM D882A
Elongation at Break TD	1400	170	%	ASTM D882A
Tensile Strength MD	750	27	kpsi	ASTM D882A
Tensile Strength MD	900	27	kpsi	ASTM D882A
Tensile Strength MD	1000	27	kpsi	ASTM D882A
Tensile Strength MD	1400	26	kpsi	ASTM D882A
Tensile Strength TD	750	30	kpsi	ASTM D882A
Tensile Strength TD	900	29	kpsi	ASTM D882A
Tensile Strength TD	1000	29	kpsi	ASTM D882A
Tensile Strength TD	1400	25	kpsi	ASTM D882A
Yield (nominal)	750	2,600	in²/lb	
Yield (nominal)	900	2,200	in²/lb	
Yield (nominal)	1000	2,000	in²/lb	
Yield (nominal)	1400	1,400	in²/lb	
THERMAL				
Shrinkage MD (150°C)	750	1.6	%	Unrestrained @ 150°C/30 min
Shrinkage MD (150°C)	900	1.6	%	Unrestrained @ 150°C/30 min
Shrinkage MD (150°C)	1000	1.5	%	Unrestrained @ 150°C/30 min
Shrinkage MD (150°C)	1400	1.3	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	750	0.9	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	900	1.1	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	1000	1.1	%	Unrestrained @ 150°C/30 min
Shrinkage TD (150°C)	1400	0.8	%	Unrestrained @ 150°C/30 min

Standard Put-ups

Core I.D. (Inches)	Roll O.D. (Inches)	Thickness (Gauge)	Length (Feet)
3	13	750	1,360
3	13	900	1,140
3	13	1000	1,020
3	13	1400	730
10 (Master roll)		750	5,400
10 (Master roll)		900	4,520
10 (Master roll)		1000	4,070
10 (Master roll)		1400	2,850

Contact Info

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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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