

MYLAR® A

Product Description

Mylar® A films are tough, general purpose films that are transparent in 48 through 92 gauge and translucent in heavier gauges. They have a rough surface to provide ease of handling, good adhesion, and processability. They are used for a broad range of industrial applications.

General Product Info

Mylar® A films have balanced tensile properties and excellent resistance to moisture and most chemicals. They can withstand temperature extremes from -100°F to 300°F. Mylar® does not become brittle with age under normal conditions, because it contains no plasticizers.

Special Features

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

- 3" ID 9 1/2" OD
- 3" ID 13" OD
- 3" ID 16" OD
- 3" ID 18" OD
 3" ID 18" OD
 6" ID 11" OD
- 6" ID 14" OD • 6" ID 16 1/2" OD
- 6" ID 18" OD

Master rolls are much longer lengths, splice free, and are available on 6 inch and 10 inch ID cores. Master rolls are available in minimum order quantities of 10,000 pounds per item.

Typical Applications

Mylar® A films are used extensively in a wide variety of markets. Some of them are:

- Apparel stays
- Book jackets
- Carbon ribbon •
- Control Tape
- Drumheads
- Duct Liners
- Identifications
- Membrane touch switches
- Metallized Base
- Pressure Sensitive Labels (plain or metallized)
- Protective surfacing
- Release liners
- Roll leaf (hot stamping)
- Spirit Masters

Approvals

FDA Food Contact Status - All gauges of Mylar® A comply with the Food and Drug Administration regulation 21 CFR 177.1630 -- Polyethylene phthalate polymers. This regulation describes films which may be safely used in contact with all types of food excluding alcoholic beverages. Uncoated films such as Mylar® A can be used to contain foods during oven cooking or oven baking at temperatures above 250 °F.

UL 94 VTM-2 - for 92-1400 gauge (0.023 - 0.35mm)

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

Avai	Available Thickness [Gauge]												
48;	75;	92;	142;	200;	300;	400;	500;	750;	900;	1000;	1200;	1400	

Property	Thickness	Value	Units	Test
OPTICAL				

		ι.		
Haze	48	4	%	ASTM D1003
Haze Haze	75 92	15 16	%	ASTM D1003 ASTM D1003
Haze	142	9 - 29	%	ASTM D1003
Haze	200	13 - 37	%	ASTM D1003
Haze	300	14 - 50	%	ASTM D1003
Haze	400	20 - 55	%	ASTM D1003
Haze	500	21 - 60	%	ASTM D1003
PHYSICAL	40	110	%	ASTM D882A
Elongation at Break MD Elongation at Break MD	48	110 110	%	ASTM D882A ASTM D882A
Elongation at Break MD	92	110	%	ASTM D882A
Elongation at Break MD	142	125	%	ASTM D002A
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 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	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 Elongation at Break TD	200	110 110	%	ASTM D882A
Elongation at Break TD	400	115	%	ASTM D882A ASTM D882A
Elongation at Break TD	500	115	%	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
Modulus	48 - 1400	507	kpsi	ASTM D822
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 Tensile Strength MD	<u>500</u> 750	27 27	kpsi kpsi	ASTM D882A 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	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 Tensile Strength TD	500 750	30 30	kpsi kpsi	ASTM D882A ASTM D882A
Tensile Strength TD	900	30 29	kpsi kpsi	ASTM D882A ASTM D882A
Tensile Strength TD	1000	29	kpsi	ASTM D882A
Tensile Strength TD	1400	25	kpsi	ASTM D002A
Yield (nominal)	48	41,300	in²/lb	
Yield (nominal)	75	26,500	in²/lb	
Yield (nominal)	92	21,500	in²/lb	
Viale (name in al)	92	21,500		
Yield (nominal)	142	14,000	in²/lb	
Yield (nominal)	142 200	14,000 9,900	in²/lb in²/lb	
Yield (nominal) Yield (nominal)	142 200 300	14,000 9,900 6,600	in²/lb in²/lb in²/lb	
Yield (nominal) Yield (nominal) Yield (nominal)	142 200 300 400	14,000 9,900 6,600 5,000	in²/lb in²/lb in²/lb in²/lb	
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal)	142 200 300 400 500	14,000 9,900 6,600 5,000 4,000	in²/lb in²/lb in²/lb in²/lb in²/lb	
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal)	142 200 300 400 500 750	14,000 9,900 6,600 5,000 4,000 2,600	in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb	
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal)	142 200 300 400 500 750 900	14,000 9,900 6,600 5,000 4,000 2,600 2,200	in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb	
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal)	142 200 300 400 500 750 900 1000	14,000 9,900 6,600 5,000 4,000 2,600 2,200 2,000	in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb	
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal)	142 200 300 400 500 750 900	14,000 9,900 6,600 5,000 4,000 2,600 2,200	in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb	
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal)	142 200 300 400 500 750 900 1000	14,000 9,900 6,600 5,000 4,000 2,600 2,200 2,000	in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb	
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal)	142 200 300 400 500 750 900 1000	14,000 9,900 6,600 5,000 4,000 2,600 2,200 2,000	in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb	Unrestrained @ 150°C/30 min
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) THERMAL	142 200 300 400 500 750 900 1000 1400	14,000 9,900 6,600 5,000 4,000 2,600 2,200 2,200 2,000 1,400	in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb	Unrestrained @ 150°C/30 min Unrestrained @ 150°C/30 min
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) THERMAL Shrinkage MD (150°C) Shrinkage MD (150°C)	142 200 300 400 500 750 900 1000 1400	14,000 9,900 6,600 5,000 4,000 2,600 2,200 2,000 1,400	in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb % % %	Unrestrained @ 150°C/30 min Unrestrained @ 150°C/30 min
Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) Yield (nominal) THERMAL Shrinkage MD (150°C)	142 200 300 400 500 750 900 1000 1400 48 75	14,000 9,900 6,600 5,000 4,000 2,600 2,200 2,000 1,400 2.0 2.0 2.0	in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb in²/lb	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 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)	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 @ 150°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
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	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
3	9 1/2	750	650
3	9 1/2	900	550
3	9 1/2	1000	500
3	9 1/2	1400	350

Contact Info

DuPont Teijin Films U.S. Limited Partnership 3600 Discovery Drive Chester, VA 23836 USA Tel: (800) 635-4639 Fax: (804) 530-9867

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.

CAUTION: Do not use in medical applications involving permanent implantation in the human body (DuPont Teijin Films Medical Policy). For other medical applications, see the Medical Caution Statement. DuPont Teijin Films accepts no liability for use of it's products in medical applications not reviewed and approved by DuPont Teijin Films or for product misuse. DuPont Teijin Films supplies products to an agreed specification and does not manufacture products designed specifically for medical end use.

Melinex®, Mylar® and Melinex® STTM are registered trademarks of DuPont Teijin Films U.S. Limited Partnership. Teijin® and Tetoron® are registered trademarks of Teijin Limited used under license by DuPont Teijin Films U.S. Limited Partnership. Teonex® is a registered trademark of Teijin DuPont Films Japan Limited and is used under license by DuPont Teijin Films U.S. Limited Partnership.