

## DuPont Teijin Films Mylar® M813 Polyester Film, 48 Gauge

Category : Polymer , Film , Thermoplastic , Polyester, TP , Polyester Film

### Material Notes:

Mylar® M813 is a clear, pretreated base film with high gloss, low haze, and excellent processability. It is a one side pre-treated polyester designed for improved ink adhesion and may be suitable for use in medical applications. General Product Info: Mylar® M813 film provides good clarity for reverse printing and allows inks to shine through with high quality. The film's pretreated surface also provides improved adhesion for various coatings and adhesives, often eliminating the need for any type of priming operation. The chemical pretreatment on Mylar® M813 film does not result in a performance or shelf life decline over time, and generally is superior to corona treated film. Mylar® M813 film features good clarity and handling characteristics in metallizing operations. When aluminum metallized, the film exhibits excellent aesthetic quality as well as the best barrier to oxygen and moisture in a flexible packaging film. Polyester is more thermally stable at higher temperatures and has higher tensile strength than materials such as polypropylene or polyethylene. Mylar® polyester film also maintains an excellent film thickness profile and roll formation to ensure consistent processability in the operations. These characteristics are particularly important in complex, multi-stage printing operations where holding print register is critical to print quality. As print complexity, quality and speeds increase, Mylar® film provides a cost-effective solution for the packaging industry. Approvals: FDA Food Contact Status - All gauges of Mylar® M813 comply with the Food and Drug Administration regulation 21 CFR 177.1630 -- Polyethylene phthalate polymers, Sections (f) and (g). This regulation describes films which may be safely used in contact with all types of food, excluding alcoholic beverages, at temperatures not to exceed 250°F. Drug Master File - This product is listed in our Drug Master File. Information provided by DuPont.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Teijin-Films-Mylar-M813-Polyester-Film-48-Gauge.php](http://www.lookpolymers.com/polymer_DuPont-Teijin-Films-Mylar-M813-Polyester-Film-48-Gauge.php)

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	
Water Vapor Transmission	0.776 g/m <sup>2</sup> /day	0.0500 g/100 in <sup>2</sup> /day	90% RH, metallized; ASTM F1249
	@Temperature 38.0 °C	@Temperature 100 °F	
	31.0 g/m <sup>2</sup> /day	2.00 g/100 in <sup>2</sup> /day	90% RH, unmetallized; ASTM F1249
	@Temperature 38.0 °C	@Temperature 100 °F	

Mechanical Properties	Metric	English	Comments
Film Elongation at Break, MD	110 %	110 %	ASTM D882A
Film Elongation at Break, TD	70 %	70 %	ASTM D882A
Coefficient of Friction, Dynamic	0.40	0.40	A-B; ASTM D1894
Coefficient of Friction, Static	0.50	0.50	ASTM D1894
Film Tensile Strength at Break, MD	214 MPa	31000 psi	ASTM D882A
Film Tensile Strength at Break, TD	290 MPa	42000 psi	ASTM D882A

Mechanical Properties	Metric	English	Comments
Thermal Properties	Metric	English	Comments
Specific Heat Capacity	1.17 J/g-°C	0.280 BTU/lb-°F	Typical Mylar®
Melting Point	254 °C	489 °F	Typical Mylar® via DSC
Maximum Service Temperature, Air	121 °C	250 °F	
Shrinkage, MD	3.5 % @Temperature 190 °C, Time 300 sec	3.5 % @Temperature 374 °F, Time 0.0833 hour	Unrestrained
Shrinkage, TD	3.5 % @Temperature 190 °C, Time 300 sec	3.5 % @Temperature 374 °F, Time 0.0833 hour	Unrestrained

Optical Properties	Metric	English	Comments
Refractive Index	1.64 - 1.67	1.64 - 1.67	typical of Mylar®
Haze	3.6 %	3.6 %	ASTM D1003
Transmission, Visible	88.5 %	88.5 %	ASTM D1003

Descriptive Properties	Value	Comments
Gas Permeability (Base film)	0.08 cc/100 in <sup>2</sup>	O <sub>2</sub> , 24 hr; ASTM D1434 77°F/75% RH/1 ATM (metallized)
	1.6 cc/100 in <sup>2</sup>	Nitrogen; ASTM D1434 (24 hrs @ 77°F and 75% RH @ 1 ATM)
	31 cc/100 in <sup>2</sup>	Carbon Dioxide; ASTM D1434 (24 hrs @ 77°F and 75% RH @ 1 ATM)
	6 cc/100 in <sup>2</sup>	O <sub>2</sub> , 24 hr; ASTM D1434 (unmetallized)
Yield (nominal)	42200 in <sup>2</sup> /lb	

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