

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

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

### Material Notes:

**Product Description:** Mylar® MLB is an uncoated, transparent, polyester film designed for use as a component of a lamination structure and may be suitable for use in medical applications. Mylar® MLB is commercially available in nominal 48 and 300 gauge. Mylar® MLB is available with corona treatment on one or both sides. These products are known as Mylar® MLBT and MLBT2 respectively and are not offered in the 300 gauge range.

**General Product Info:** Mylar® MLB polyester film frequently is selected as a component of a laminated structure because of its ability to contribute great strength, high temperature resistance and flavor/odor barrier. Its sparkling clarity and relative insensitivity to heat and humidity make it an ideal print carrier and outer ply of many laminated food packaging structures. Retention of properties over a temperature range from -100°F to 300°F permits uses requiring freezer storage temperatures followed by heating for warming, cooking or ovenable applications. The chemical resistance and barrier to acids, weak bases, greases and oils, detergents and other active ingredients make Mylar® MLB useful in containing many "hard-to-hold" food or non-food products. Mylar® MLB is not degraded by standard sterilization procedures involving steam retorts, gamma or cobalt radiation, ethylene oxide gas exposure or hydrogen peroxide immersion.

**Typical Applications:** A basic lamination would combine plain or printed Mylar® MLB with a heat sealable ply consisting of LDPE, LLDPE, EVA, ionomer, acid copolymer, PVC or other materials using adhesive or extrusion laminating techniques. Such structures might be suitable for heat sealed pouches for frozen foods, heat-in applications, packages not requiring high oxygen barrier, some condiments and some medical device applications. If greater gas barrier is required, a layer of foil, PVdC or EVOH may be inserted between the Mylar® MLB and the sealant layer, or barrier adhesives or sealant layers may be utilized. Typical applications might include processed meats, condiments, nuts, cheese, sauces and dry mixes.

**Approvals:** FDA Food Contact Status - All gauges of Mylar® LB comply with the Food and Drug Administration regulation 21 CFR 177.1630 -- Polyethylene Terephthalate 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® LB can be used to contain foods during oven cooking or oven baking at temperatures above 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-MLB-Polyester-Film-48-Gauge.php](http://www.lookpolymers.com/polymer_DuPont-Teijin-Films-Mylar-MLB-Polyester-Film-48-Gauge.php)

Physical Properties	Metric	English	Comments
Density	1.39 g/cc	0.0502 lb/in <sup>3</sup>	Typical Mylar®; ASTM D1505
Water Vapor Transmission	43.5 g/m <sup>2</sup> /day @Temperature 38.0 °C	2.80 g/100 in <sup>2</sup> /day @Temperature 100 °F	90% RH; ASTM F1249

Mechanical Properties	Metric	English	Comments
Film Elongation at Break, MD	110 %	110 %	ASTM D882A
Film Elongation at Break, TD	80 %	80 %	ASTM D882A
Tensile Modulus	3.79 GPa	550 ksi	ASTM D882
Graves Tear Strength	0.123 kN/m	0.700 pli	ASTM D1004

Film Tensile Strength at Break, MD Mechanical Properties	186 MPa Metric	27000 psi English	ASTM D882A Comments
Film Tensile Strength at Break, TD	234 MPa	34000 psi	ASTM D882A

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	149 °C	300 °F	
Maximum Service Temperature, Inert	-73.3 °C	-100 °F	
Shrinkage, MD	2.2 % @Temperature 150 °C, Time 1800 sec	2.2 % @Temperature 302 °F, Time 0.500 hour	Unrestrained
Shrinkage, TD	1.3 % @Temperature 150 °C, Time 1800 sec	1.3 % @Temperature 302 °F, Time 0.500 hour	Unrestrained

Optical Properties	Metric	English	Comments
Refractive Index	1.64 - 1.67	1.64 - 1.67	typical of Mylar®
Haze	4.0 %	4.0 %	ASTM D1003
Gloss	200 %	200 %	20°; ASTM D2457
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Descriptive Properties	Value	Comments
Clarity	0.76	ASTM D1746
Gas Permeability (Base film)	9 cc/100 in <sup>2</sup>	O <sub>2</sub> , 24 hr; ASTM D3985 77°F/75% RH/1 ATM
Unit Weight	10.4 in <sup>2</sup> /lb	ASTM E252 (0.5 m <sup>2</sup> )
Yield (nominal)	14700 in <sup>2</sup> /lb	

## Contact Songhan Plastic Technology Co.,Ltd.

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