

## DuPont Teijin Films Mylar® RL31 Polyester Film, 50 Gauge

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

### Material Notes:

Mylar® RL31 is a biaxially oriented polyester (OPET) with an ethylene vinyl acetate (EVA) heat seal layer. It is used as a heat sealable lidding film in packaging frozen and refrigerated foods. Mylar® RL31 is commercially available in nominal 50, 75 and 100 gauges. Mylar® RL31 is designed to seal to a broad range of container substrates including amorphous polyester (APET, also PETG), semicrystalline polyester (CPET), polyester coated paperboard, polyvinylchloride (PVC), polyethylene (HDPE), polypropylene (PP), and polystyrene (HIPS). Mylar® RL31 was developed as a replacement for Mylar® RL2 with improved grease and oil resistance, and has been shown to be superior in almost all applications. Heat seals with Mylar® RL31 are stronger than with Mylar® OL, but are still generally strippable from most container substrates. Shredding (film tear or break) can be minimized or eliminated by using higher gauges. Mylar® RL31 has a lower seal initiation temperature than lidding films with an amorphous polyester heat seal layer (e.g., Mylar® OL, OL2). This allows good seals to be made at higher line speeds (or using lower sealing temperatures). Mylar® RL31 is not recommended for applications where "caulking" is required. Mylar® RL31 can withstand freezing temperatures down to -40°F, and foods can be heated or cooked in contact with this film at temperatures up to 400°F. The oriented polyester base film will begin to distort in the range of 425-450°F. Corona Treatment (Mylar® RL31T): Selected gauges of Mylar® RL31 are available with corona treatment (on the opposite side of film from the heat seal layer) to enhance printing and laminating. This film type is marketed by DuPont Teijin Films as Mylar® RL31T and is commercially available in nominal 50, 75, and 100 gauges. The film is treated to an initial dyne level of 54. The dyne level of treated lidding films may decline with storage, and in-line corona treatment may be required during subsequent printing or laminating to increase the dyne level to a value adequate to get desired ink or laminate adhesion. Standard put-ups for Mylar® RL31T are the same as shown for Mylar® RL31. Anti-fog: Mylar® RL31 is not available with anti-fog capability. Approvals: FDA Food Contact Status - All gauges of Mylar® RL31 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. Mylar® RL31 can be used to contain foods during oven cooking or oven baking at temperatures above 250°F. Information provided by DuPont.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Teijin-Films-Mylar-RL31-Polyester-Film-50-Gauge.php](http://www.lookpolymers.com/polymer_DuPont-Teijin-Films-Mylar-RL31-Polyester-Film-50-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	20.2 g/m <sup>2</sup> /day @Temperature 38.0 °C	1.30 g/100 in <sup>2</sup> /day @Temperature 100 °F	90% RH; ASTM F1249
Coating Weight	20.3 g/m <sup>2</sup>	12.7 lb/ream	0.5 m<sup>2</sup>; ASTM E252

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 Mechanical Properties	0.123 kN/m Metric	0.700 pli English	ASTM D1004 Comments
Film Tensile Strength at Break, MD	172 MPa	25000 psi	ASTM D882A
Film Tensile Strength at Break, TD	241 MPa	35000 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

Descriptive Properties	Value	Comments
Gas Permeability (Base film)	5 cc/100 in <sup>2</sup>	O <sub>2</sub> , 24 hr; ASTM D3985 77°F/75% RH/1 ATM
Yield (nominal)	19500 in <sup>2</sup> /lb	

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