

## **DuPont Teijin Films Mylar® EC Polyester Film, 500 Gauge**

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

## **Material Notes:**

Mylar® EC films are electrical grade films designed for use in applications where improved dimensional stability is required. In addition to lower levels of shrinkage, Mylar® EC films offer outstanding durability, chemical inertness, good dielectrics, and good handling characteristics. General Product Info: The outstanding strength, flexibility, and electrical properties of Mylar® EC films, combined with lower than normal shrinkage levels, make them especially suited for circuitry and membrane touch switch applications. The film's moisture and chemical resistance serve as a barrier to substances that could contaminate membrane touch switches. Typical Applications: The unique balance of properties offered by Mylar® EC films makes them ideal for membrane switches and flexible circuits used in a variety of consumer and industrial products, including automotive instrument clusters, computers, calculators, telephones, cameras, and appliances. Approvals: UL 94 VTM-2 - for 200 - 500 gauge (0.05 - 0.13mm)Information provided by DuPont.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_DuPont-Teijin-Films-Mylar-EC-Polyester-Film-500-Gauge.php

| Physical Properties | Metric      | English         | Comments |
|---------------------|-------------|-----------------|----------|
| Density             | 1.3923 g/cc | 0.050300 lb/in³ |          |

| Mechanical Properties              | Metric  | English   | Comments   |
|------------------------------------|---------|-----------|------------|
| Film Elongation at Break, MD       | 160 %   | 160 %     | ASTM D882A |
| Film Elongation at Break, TD       | 160 %   | 160 %     | ASTM D882A |
| Film Tensile Strength at Break, MD | 159 MPa | 23000 psi | ASTM D882A |
| Film Tensile Strength at Break, TD | 165 MPa | 24000 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 |  |
| Shrinkage, MD          | 0.50 %                                | 0.50 %                                  |                        |  |
|                        | @Temperature 150 °C,<br>Time 1800 sec | @Temperature 302 °F,<br>Time 0.500 hour | Unrestrained           |  |
| Shrinkage, TD          | 0.20 %                                | 0.20 %                                  | Unrestrained           |  |
|                        | @Temperature 150 °C,<br>Time 1800 sec | @Temperature 302 °F,<br>Time 0.500 hour |                        |  |

| Optical Properties | Metric      | English     | Comments          |
|--------------------|-------------|-------------|-------------------|
| Refractive Index   | 1.64 - 1.67 | 1.64 - 1.67 | typical of Mylar® |



| Optical Properties | Metric | English | Comments   |
|--------------------|--------|---------|------------|
| Haze               | 31 %   | 31 %    | ASTM D1003 |

| Electrical Properties | Metric    | English    | Comments   |
|-----------------------|-----------|------------|--|
| Dielectric Strength   | 106 kV/mm | 2700 kV/in | 1/4" electrode 500 V/sec 25°C in air;<br>ASTM D149 |
| Dielectric Breakdown  | 13500 V   | 13500 V    | 1/4" electrode 500 V/sec 25°C in air;<br>ASTM D149 |

| Descriptive Properties | Value                    | Comments |
|------------------------|--------------------------|----------|
| Yield (nominal)        | 4000 in <sup>2</sup> /lb |          |

## **Contact Songhan Plastic Technology Co.,Ltd.**

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