# <u>CELGARD</u>

# **Celgard® PP1410**

**Monolayer Microporous Membrane** 

### **Product Name & Description**

Celgard<sup>®</sup> PP1410 14µm Monolayer Microporous Membrane (PP)

## **Primary Applications**

High Power Lithium-Ion Battery Systems

## **Product Benefits**

- Zero TD shrinkage reduces internal shorting
- Uniform pore structure with high chemical & thermal stability
- High porosity for excellent high-rate performance
- PP layer provides superior high temperature melt integrity compared to other polyolefin-based, uncoated separators as well as oxidation resistance

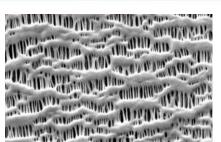
### Packaging

Please contact your Celgard representative for more information on product roll lengths and slit widths.

## **Technical Data (Typical Properties)**

| Basic Film Properties                         | Unit of Measure    | Typical Value |
|---|--------------------|---------------|
| Thickness                                     | μm                 | 14            |
| Gurley (JIS)                                  | Seconds            | 185           |
| Porosity (Calculated)                         | %                  | 43            |
| TD Shrinkage @ 105°C / 1 Hour (typical)       | %                  | 0             |
| MD Shrinkage @ 105°C / 1 Hour (typical / max) | %                  | 0.5 / 2.3     |
| TD Tensile Strength (typical / min)           | Kg/cm <sup>2</sup> | 150 / 100     |
| MD Tensile Strength (typical / min)           | Kg/cm <sup>2</sup> | 1800 / 1000   |
| Puncture Strength (typical / min)             | Grams Force (gf)   | 290 / 200     |

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SEM images for illustrative purposes only



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