# <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

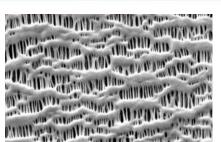
### Packaging

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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