# <u>CELGARD</u>

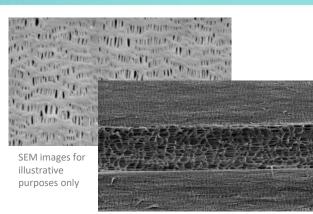
# Celgard<sup>®</sup> H1609 Trilayer Microporous Membrane

## **Product Name & Description**

Celgard<sup>®</sup> H1609 16µm Trilayer Microporous Membrane (PP/PE/PP)

### **Primary Applications**

**High Power** Lithium-Ion Battery Systems; especially those that require additional safety advantages Automotive EDV, ESS



### **Product Benefits**

- Zero TD shrinkage reduces internal shorting
- · Uniform pore structure with high chemical & thermal stability
- High porosity for excellent high-rate performance
- PP outer layer provides high temperature melt integrity, oxidation resistance
- PE inner layer provides high-speed shutdown features
- Low electrical impedance

### 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	16
Gurley (JIS)	Seconds	165
Porosity (Calculated)	%	50
TD Shrinkage @ 105°C / 1 Hour (typical)	%	0
MD Shrinkage @ 105°C / 1 Hour (typical / max)	%	2.7 / 6.0
TD Tensile Strength (typical / min)	Kg/cm <sup>2</sup>	160 / 100
MD Tensile Strength (typical / min)	Kg/cm <sup>2</sup>	2000 / 1200
Puncture Strength (typical / min)	Grams Force (gf)	380 / 250

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