

# Celgard® 2320

## PRODUCT INFORMATION

### Name

Celgard® 2320

### Description

20 µm Microporous Trilayer Membrane (PP/PE/PP)

### Primary Application

Secondary Lithium Batteries

### Product Features

- 20 µm microporous trilayer membrane (PP/PE/PP)
- Excellent resistance to acids, bases & most chemicals
- Uniform pore structure with high chemical and thermal stability
- Oxidation resistance for excellent cycling & trickle charge performance
- PE inner layer provides high-speed shutdown
- Zero TD shrinkage reduces internal shorting and improves high temperature dimensional stability



## Technical Data (Typical Properties)

Basic Film Properties	Unit of Measure	Typical Value
Thickness	µm	20
Gurley (JIS)	Seconds	530
Porosity	%	39
PP Pore Size (Avg. Diameter)	µm	0.027
TD Shrinkage @ 90° C / 1 Hour	%	0
MD Shrinkage @ 90° C / 1 Hour	%	5
Puncture Strength	Grams	360
Tensile Strength, MD	Kg/cm <sup>2</sup>	2050
Tensile Strength, TD	Kg/cm <sup>2</sup>	165

## Packaging

- This product can be ordered on 400m, 800m, 1000m, and 1600m length rolls.
- Standard metric slitting is available in a variety of widths ranging from 11.0 to 93.0 mm.
- Please contact your Celgard representative for more information on Metric slit widths greater than 93.0 mm, English slit widths, or non-standard core widths.



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#### Headquarters

Celgard, LLC  
13800 South Lakes Drive  
Charlotte, NC 28273  
United States

Toll Free (US): 1-800-235-4273

Phone: +1 704-588-5310

Fax: +1 704-587-8585

#### China

Celgard, LLC  
Ming Wah Centre  
Room #1706  
No. 8 Gui Shan Road  
Shenzhen, China 518067

Phone: +86 755-2688-7796

Fax: +86 755-2688-7797

#### Japan

Celgard KK  
Shinjuku Mitsui Building, 27F  
1-1, Nishishinjuku 2-chome  
Shinjuku-ku, Tokyo  
163-0427  
Japan

Phone: +81 3-5324-3361

Fax: +81 3-5324-3369

#### Korea

Celgard Korea, Inc.  
806-3 Yangcheong-Ri,  
Ochang-Eup,  
Cheongwon-Gun,  
Chungbuk 363-883 Korea

Phone: +82 43-219 2940

Fax: +82 43-219 2905

[www.celgard.kr.com](http://www.celgard.kr.com)

**WARRANTY:** This product is to be used only by persons familiar with its use. It must be maintained within the stated limitations. The product is warranted to be free of any manufacturing defects. No other warranty is expressed or implied. Purchaser assumes all responsibility for the use and safety of this product. To the best of our knowledge, the information contained herein is accurate. However, neither CELGARD, LLC nor any of its affiliates assumes any liability whatsoever for the accuracy or completeness of this information. Final determination of the suitability of any material and whether there is any infringement of patents is the sole responsibility of the user.

Users of any substances should satisfy themselves by independent investigation that the material can be used safely. We may have described certain hazards, but we cannot guarantee that these are the only hazards that exist. Review the Product Safety Data Sheet for environmental, health and safety information related to this product.

CELGARD, LLC is committed to operating in a manner that meets or exceeds all environmental and customer standards, and maintains certifications under the ISO 9001:2000 Quality Management and ISO 14001 Environmental Management Systems. All CELGARD products are RoHS compliant.



CELGARD is a recognized leader in the development and production of specialty microporous membranes serving the high energy and other high performance markets. CELGARD and its sister company, Daramic, comprise the Energy Storage Division of Polypore, Inc. (NYSE: PPO), a global high filtration company specializing in microporous membranes.



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