

Celgard® 2318 Trilayer Microporous Membrane

Product Name & Description

Celgard® 2318

18µm Trilayer Microporous Membrane (PP/PE/PP)

Primary Applications

High Energy Lithium-Ion Battery Systems; especially those that require additional safety advantages

SEM images for illustrative purposes only

Product Benefits

- Zero TD shrinkage reduces internal shorting
- · Uniform pore structure with high chemical & thermal stability
- Medium porosity provides excellent energy performance with low self-discharge
- PP outer layer provides high temperature melt integrity, oxidation resistance
- · PE inner layer provides high-speed shutdown features

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	18
Gurley (JIS)	Seconds	520
Porosity (Calculated)	%	39
TD Shrinkage @ 105°C / 1 Hour (typical)	%	0
MD Shrinkage @ 105°C / 1 Hour (typical / max)	%	2.0 / 8.0
TD Tensile Strength (typical / min)	Kg/cm ²	130 / 100
MD Tensile Strength (typical / min)	Kg/cm ²	2250 / 1500
Puncture Strength (typical / min)	Grams Force (gf)	430 / 340

At the Center of Membrane Innovation



Contact Information

United States

Headquarters, Manufacturing and R&D at Charlotte 13800 South Lakes Drive Charlotte, North Carolina 28273 United States

Phone: +1 704-588-5310 Fax: +1 704-588-5319

China

Manufacturing & Distribution
Polypore (Shanghai) Membrane
Products Co., Ltd.
L1 3rd Floor, No. 207 Tai Gu Road
WaiGaoQiao Free Trade Zone,
Shanghai 200131, P.R. China

Phone: +86(21) 5866 6200 Fax: +86(21) 5868 2891 Manufacturing and R&D at Concord 390 Business Boulevard Concord, North Carolina 28027 United States

Phone: +1 704-720-5200 Fax: +1 704-720-5211

Sales & Technical Service
Celgard Sales Office
Room 1503-1506, Block 6, Lane 3611
Zhangyang Road
Jinqiao International Plaza,
Pudong New District
Shanghai, PR China 200136

Phone: +86 21 3813 9910 Fax: +86 21 3813 9911

Europe, Middle East & Africa (EMEA)

Sales & Technical Service BP 90149 25 Rue de Westrich Sélestat Cedex 67603 France

Phone: +33 3 88 82 41 08 Fax: +33 3 55 03 59 03

Korea

Sales & Technical Service
Polypore Korea, Ltd.
B-506 10, Baekseokgongdan 1-ro,
Seobuk-gu, Cheonan-si,
Chungcheongnam-do,31094
Republic of South Korea
Phone: +82 41-905-6001

Phone: +82 41-905-600 Fax: +82 41-905-6099

Japan

Sales & Technical Service Polypore K.K. Hibiya Mitsui Tower 1-1-2 Yurakucho, Chiyoda-ku, Toyko, 100-0006 Japan

Phone: +81 3-6891-3750 Fax: +81 3-6891-3769

India & South Asia

Sales & Technical Service
Pragati Mahalakshmi Building,
Ground Floor, Site No. 62,
New PID No. 11-51-62, 1st Main Road,
3rd Cross, Industrial Suburb II Stage,
Yeshwanthpura,
Bangalore, India 560022

Phone: +91 80 4256 1104 Fax: +91 80 4256 1106



DISCLAIMER, LIMITED WARRANTY: This product is to be used only by persons familiar with its use. It must be maintained within the stated limitations. Most non-developmental, purchased Celgard products are sold subject to Celgard's then current Sales T&C's. 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 substance 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. An Article Information Sheet may be available upon request. This product may be provided in confidence under NDA and as such is Celgard Confidential.

CELGARD and the CELGARD LOGO are trademarks of CELGARD, LLC. ©2025 CELGARD, LLC. All Rights Reserved. 4/25

Please download an updated version of this document at www.celgard.com/literature after 4/30/27

