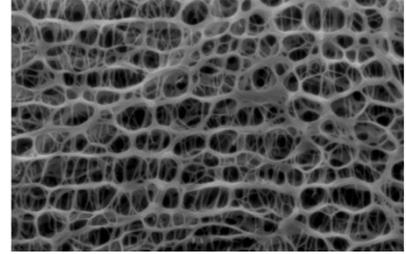


### Product Name & Description

Celgard® Z1831  
18µm Microporous Membrane (Polypropylene)

### Primary Applications

Filtration, Venting, Diffusion, Ion Transport



SEM images for illustrative purposes only

### Product Benefits

- High porosity membrane with uniform, large microporous structure
- High chemical and thermal stability
- Hydrophobic
- Suitable for coating and lamination

### 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            | 20            |
| Porosity (Calculated)                                | %                  | 77            |
| TD <sup>1</sup> Shrinkage @ 105°C / 1 Hour (typical) | %                  | ≤ 12          |
| MD <sup>2</sup> Shrinkage @ 105°C / 1 Hour (typical) | %                  | ≤ 12          |
| TD Tensile Strength (typical)                        | Kg/cm <sup>2</sup> | 200           |
| MD Tensile Strength (typical)                        | Kg/cm <sup>2</sup> | 500           |

<sup>1</sup> TD = Transvers Direction. "Along the width"

<sup>2</sup> MD = Machine Direction "Along the length"

### Manufacturing Locations

#### United States

*Headquarters, Manufacturing and R&D at Charlotte*

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28273 United States

Phone: +1 704-588-5310

Fax: +1 704-588-5319

*Manufacturing and R&D at Concord*

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Concord, North Carolina  
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#### China

*Manufacturing & Distribution*

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### Sales Offices

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#### Korea

*Sales & Technical Service*

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#### India & South Asia

*Sales & Technical Service*

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