LENN
[N6/N6,6 Zeta Charged Membrane]

- Combining mechanical sieving abilities with the charged attraction capacity of a positive zeta potential.
- Excellent particle removal efficiency, retention of negatively-charged biological and particulate contaminants including endotoxins.
- Broad compatibility to a wide pH range and chemical.
- Available in Retention Rating of 0.05, 0.1, 0.2, 0.45 Absolute (Beta Ratio of 10,000, >99.9% retention rating by standard latex bead challenge.)
- 100% Integirty testable
- Low extractable levels, no surfactants or adhesives used in manufacturing, fully thermal welded construction.
- Quick rinse-up
- Manufactured in a cleanroom environment, cartridge pre-flushed with 18megaohm UPW water.

Applications
UHP Water
- Central PAD
- UPW Final Filter
- Polishing Stations
- Point-of-Use
UHP Chemical
- Specialty Chemicals
- Point-of-Use
- Bulk Photoresists and Solvents
Microelectronics
- Semiconductor
- Optical Disks
- Printed Circuits
- Hard Disks

The SEM photograph (above) shows an Electropor charge-modified nylon 6,6 membrane with captured 0.021 micron mono-dispersed latex beads. The combination of Electrokineastic adsorption (positive charge) and mechanical sieving (pore size) provides for enhanced particle removal capability of submicron contaminants like colloidal silica and bacteria fragments.

Illustration above shows the capture of minute particulate through electrical attraction to the charge sites on the membrane pores...
**Product Specifications**

**Materials of constructions:**
- Membrane: Nylon 6.6 positively charged
- Membrane Support/Drainage: Polypropylene
- Structural Components: Polypropylene
- Seal Material: various
- Sealing Method: thermal welding

**Surface Area (10” cartridge):**
- Minimum ≥0.7 m²

**Integrity Test:**
Bubble Point (As specified in National GMP,25°C,Pure water):
- 0.05µm: > 4.2 bar
- 0.1µm: > 3.5 bar
- 0.2µm: > 2.8bar
- 0.45µm: > 1.2bar

**Dimension:**
- Outside Diameter: 2.5” (70 mm) [nominal]
- Lengths: 2-30 in (10-76 cm)

**Recommended Operating Conditions:**
- Maximum Temperature:
  - ≤80°C (Differential Pressure:0.2 Mpa)
- Maximum Differential Pressure (25°C):
  - Forward: 60psi(4.2 bar)
  - Reverse: 30 psi (2.1bar)

**Performance Specifications**
- Resistivity rinse-up to 18 megohm-cm: < 35 minutes
- Single digit ppb TOC rinse-up: < 35 minutes

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**Ordering Information**

<table>
<thead>
<tr>
<th>Micron rating Selections:</th>
<th>Endcaps:</th>
<th>Nominal Length</th>
<th>Seal Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEENN (e-Grade Hydrophilic N6.6 Membrane)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>005</td>
<td>0.05µm</td>
<td>E – D.O.E</td>
<td>05 – 5”</td>
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<tr>
<td>010</td>
<td>0.10µm</td>
<td>A – 222 o’ring/Fin</td>
<td>10 – 10”</td>
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<tr>
<td>020</td>
<td>0.20µm</td>
<td>B – 222 o’ring/Flat</td>
<td>20 – 20”</td>
</tr>
<tr>
<td>045</td>
<td>0.45µm</td>
<td>C – 226 o’ring/Fin</td>
<td>30 – 30”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D – 226 o’ring/Flat</td>
<td>40 – 40”</td>
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</tbody>
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