ELECTROCHEMICAL GAS SENSOR SOLUTIONS

Protect and enhance your sensor's performance with innovative porous polymers.
POREX® Gas-Specific Absorbing Filters

Improve absorption capacity

POREX proprietary manufacturing processes allow for loading of absorbents, additives or catalysts within the glass fiber porous matrix that will absorb or react with unwanted gases.

Target Gases
- Combustible Gases
- Hydrogen Sulphide (H₂S)
- Carbon Monoxide (CO)
- Sulfur Dioxide (SO₂)
- Chlorine (Cl₂)
- Ammonia (NH₃)
- Phosphine (PH₃)
- Hydrogen Cyanide (HCN)
- Hydrogen (H₂)
- Ethylene Oxide (C₂H₄O)
- Oxygen (O₂)
- Nitrogen Dioxide (NO₂)
- Ozone (O₃)
- Hydrogen Fluoride (HF)
- Hydrogen Chloride (HCl)
- Phosgene (COCl₂)
- Several Others

Functional Additives
- Silica Compounds
- Metal Oxides
- Proprietary Formulations
- Swelling Agents
- Many Other Options

Available Sizes:
POREX filters and media are available in standard and custom sizes:

Standard Thickness:
- 1.2 mm

Standard Diameters Available:
- 5 mm
- 7 mm
- 10 mm
- 11 mm
- 12 mm

Please contact us for other available thicknesses and diameters.
**POREX® Activated Carbon Filters**  
Eliminate carbon cloth shedding and increase absorption capacity

POREX advanced activated carbon filters are a very clean, durable alternative to carbon cloth and carbon trapped within alternative non-woven media. In addition to general organics, POREX activated carbon filters also efficiently absorb low molecular weight alcohols such as ethanol which can cause false measurements by carbon monoxide (CO) detectors.

With standard and custom sizes available and enhanced alcohol absorption, POREX carbon components by far outperform competitive materials for a longer service life.

**Advantages of bonded fiber over glass wool:**
- Thickness up to 20mm
- Diameters cut to order
- Excellent fluid retention and delivery
- No loose fibers
- Tailored density and fluid flow
- Can be used in automation

**POREX® Reservoirs**  
Eliminate hazardous glass wool

Electrolyte reservoirs and wicks are needed to retain and deliver an electrochemical system’s electrolyte to facilitate the chemical reaction. POREX fiber and foam media can be used for reservoirs, general wicking, and supporting of fluids within electronics and sensors. Engineered for optimal capacity and directional flow, our electrolyte reservoirs and wicks minimize inhalation and skin hazards through the use of safe-to-use polypropylene and polyethylene and meet your custom specifications.

**Absorbs more of the problem gas per unit volume than the competition, thereby lasting longer.**

**Standard Diameters:**
- 4 mm
- 10 mm
- 18 mm
- Custom sizes available
POREX Virtek™ PTFE Membrane Materials

Improve sensor response time

POREX Virtek microporous PTFE membrane is manufactured via a proprietary sintering process. POREX Virtek PTFE allows for faster diffusion of target gases improving the response time of the sensor and leading to faster detection. POREX Virtek diffusion rate does not change when handled as it does with ePTFE products. POREX Virtek PTFE is inert and does not require scrim support that could absorb or desorb (release) gases, thereby causing slower or false readings.

Microporous POREX Virtek™ PTFE Advantages

- Durable and reliable dust cover
- Fast gas diffusing rates
- Printable surfaces for catalyst
- Minimal shrinkage during curing process
- Low failure rate in assembly process
- Pure PTFE
- Made in class 100K clean room

POREX Virtek™ PTFE Materials for Sensors

<table>
<thead>
<tr>
<th>Product #</th>
<th>WEP mbar</th>
<th>Airflow l/hr/cm² @70mbar</th>
<th>Thickness (mm)</th>
<th>Filtration Efficiency** &gt;99.99%</th>
<th>Hydrophobic</th>
<th>Typical Application</th>
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</thead>
<tbody>
<tr>
<td>PMV10</td>
<td>270</td>
<td>125</td>
<td>0.13</td>
<td>0.50 μ</td>
<td>Yes</td>
<td>Dust Filter</td>
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<tr>
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<tr>
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<tr>
<td>PMG20</td>
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<tr>
<td>PMG25</td>
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<td>0.19</td>
<td>0.19 μ</td>
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<td>Catalyst Carrier</td>
</tr>
</tbody>
</table>

WEP = Water Entry Pressure
RoHS, WEEE, REACH COMPLIANT

Testing results available upon request

Properties are typical and not meant for specifications. Properties for membrane only, selected options and adhesives may affect properties.

POREX Virtek™ PTFE Materials

- Strong sintered structure does not shrink significantly when heated
- Can be thermally or vibrationally welded to lower cycle time and costs

<table>
<thead>
<tr>
<th>Dimensions OD/ID (mm)*</th>
<th>Material Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>OD</td>
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<tr>
<td>PMV10L</td>
<td>PMV15N</td>
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<td>PMV10LI</td>
<td>PMV15I</td>
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<tr>
<td>PMV10LC</td>
<td>PMV15C</td>
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</table>

Stock Product Offering – Protective Adhesive Vents

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