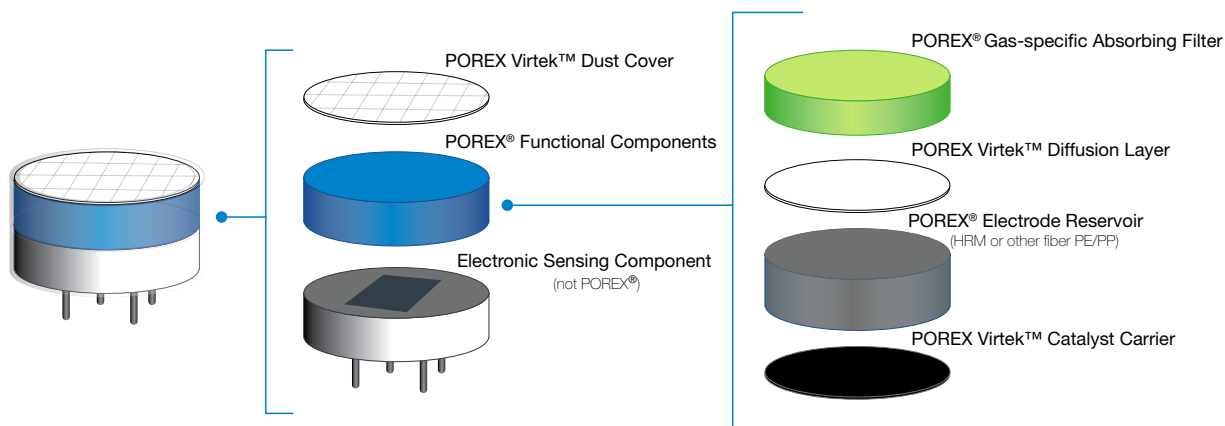


ELECTROCHEMICAL GAS SENSOR SOLUTIONS

Protect and enhance your sensor's performance
with innovative porous polymers.



THE GLOBAL STANDARD IN INNOVATIVE POROUS POLYMER SOLUTIONS FOR A WIDE ARRAY OF ELECTROCHEMICAL GAS SENSOR APPLICATIONS



- 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

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

- H₂S
- SO₂
- HMDS
- Volatile Organic Compounds
- Low Molecular Weight Alcohols

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:

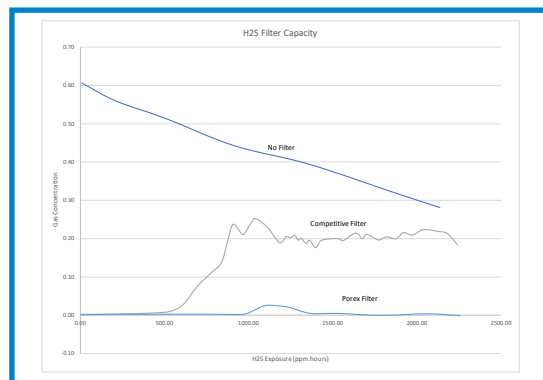
Standard Thickness:

- 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® filters absorb more of the problem gas per unit volume than the competition to increase the life of sensor.



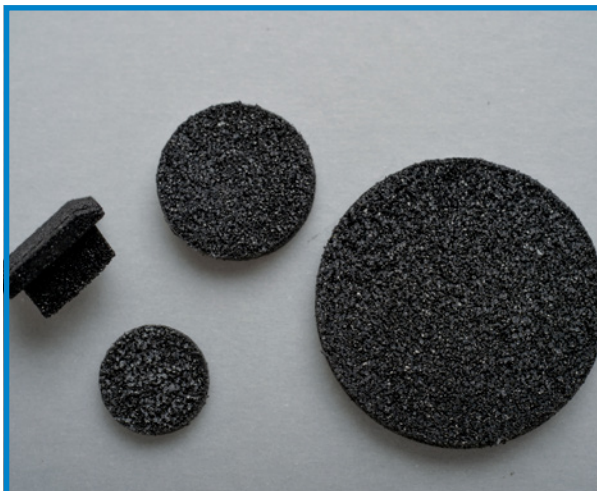
POREX® filters are constructed with safe-to-use additives versus competitive products with toxic lead acetate components.

POREX® Activated Carbon Filters

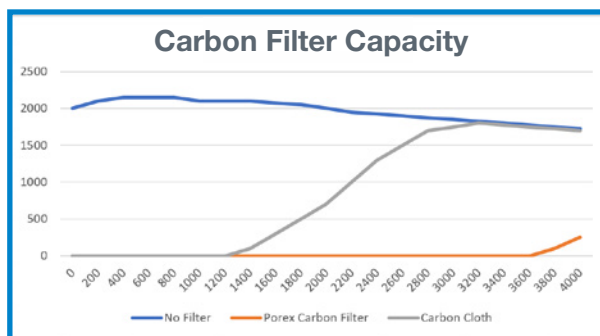
Eliminate carbon cloth shedding and increase absorption capacity

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.



Constructed with low shedding bonded carbon versus shedding carbon cloth to simplify the manufacturing process.



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® 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.



Eliminate the need to use glass wool, which can cause inhalation issues and skin irritation, by using harmless PP or PE

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 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.



Strong sintered structure does not shrink significantly when heated

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



Can be thermally or vibrationally welded to lower cycle time and costs

POREX Virtek™ PTFE Materials for Sensors

Product #	WEP mbar	Airflow l/hr/cm² @70mbar	Thickness (mm)	Filtration Efficiency** >99.99%	Hydrophobic	Typical Application
PMV10	270	125	0.13	0.50 µ	Yes	Dust Filter
PMV10L	270	85	0.30	0.50 µ	Yes	Dust Filter
PMG15	400	70	0.18	0.40 µ	Yes	Catalyst Carrier
PMG20	750	15	0.10	0.20 µ	Yes	Catalyst Carrier
PMG25	1000	5	0.19	0.19 µ	Yes	Catalyst Carrier

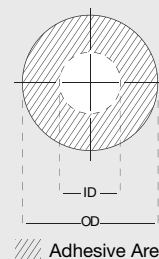
WEP = Water Entry Pressure
RoHS, WEEE, REACH COMPLIANT

**Testing results available upon request

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

Stock Product Offering – Protective Adhesive Vents

Dimensions OD/ID (mm)*	Material Series			
	PMV10L	PMV15	PMV20	PMV30
7.0/3.0 (N)	PMV10LN	PMV15N	PMV20N	PMV30N
10.0/7.0 (I)	PMV10LI	PMV15I	PMV20I	PMV30I
12.7/7.1 (W)	PMV10LW	PMV15W	PMV20W	PMV30W
20.0/13.0 (C)	PMV10LC	PMV15C	PMV20C	PMV30C



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