

# POREX® Porous PTFE Materials

For Medical, Analytical and Industrial Applications



- Chemically inert
- Thermally resistant
- High tensile strength
- Homogeneous and robust pore structure
- Steam and ETO sterilization compatible
- Hydrophobic and oleophobic
- Available with PP support net
- Can also be manufactured in black
- Manufactured in class 100k clean room
- Suitable for:
  - High Speed Automation
  - Ultrasonic and Thermal Welding
  - Insert Moulding
  - Printing

## Why Choose POREX Porous PTFE Materials?

POREX Porous PTFE Materials offer excellent control over pore size, porosity, permeability, water intrusion pressure and thickness. Designed to help deliver precision, accuracy and reliability, POREX Porous PTFE Materials exemplify the critical design standards required in many challenging filtration, venting, diffusion and media support applications.

POREX® PTFE Materials feature an intricate network of open-celled, omni-directional pores that offer exceptional performance on and below the surface. Our proprietary manufacturing process results in a robust, durable, chemically resistant and design flexible material with long-term value advantages.

POREX PTFE Materials are available as rolls, sheets, slit rolls, die-cut parts, rotary cut parts, adhesive discs and as finished components engineered to customer's specifications.











# POREX® Porous PTFE Materials

#### **Features**

- Standard pore sizes from 1μ to 50μ (by Bubble Point)
- Standard roll width 330mm
- Available conversions: sheets, slit rolls, die-cut parts, rotary cut parts and adhesive discs
- Standard thickness from 100µ to 3mm
- Service temperature range from cyrogenic to +260°C
- Air flow rates up to 13 l/hr/cm² at 10 mbar
- Water intrusion pressure up to 1600 mbar
- Non-standard requirements can be custom manufactured according to customer's specifications



#### **Automotive Vents**

POREX® Automotive Venting Membranes are hydrophobic and oleophobic, pressure compensating elements to protect electronic control systems from pressure build-up and water intrusion. Typical examples include:

- Engine Management Systems
- Tyre Pressure Monitoring Systems
- Anti-lock Braking System
- Air bags

- Headlights
- Electric motor housings
- Traction Control System



#### **Gas Sensor Vents**

POREX® Venting Membranes are used for protection of an electrochemical sensor and are usually coated or printed by the customer with a catalyst. The membranes are easy to handle and dimensionally stable during the sintering or printing process. POREX® Membranes are also hydrophobic, breathable, and either laminated to a strong PP mesh or robust in itself. They can be used as a "dust cover" without interfering with the performance of the electrochemistry. POREX Venting Membranes can control the flow of gas into the sensor to a slow but steady flow.



#### **Cap Closure Vents**

Hydrophobic and oleophobic vented closures on a sealed container balance the pressure between the interior and the atmosphere without loss or contamination of the contents. In liquid packaging, especially of hazardous chemicals, there is a high need for vented caps and closures. POREX® Membranes are an effective and low-cost industry recognized solution to this problem. Using a single-component membrane reduces installation cost and time. The inherent membrane strength ensures reliable and repeatable performance in demanding automated welding processes, needing no housing or molded support for assembly.



### **IV Catheter Vents**

Standard IV catheter insertion procedure is to advance the catheter into a vein until blood is seen in the "flash chamber" of the catheter. POREX® Porous PTFE Vents with ETO or steam sterilization compatibility help create a breathable liquid barrier that prevents blood bypass through the vent.



#### **Chromatography Frits**

POREX® Porous PTFE Chromatography Frits are used in a wide variety of sample preparation and high throughput applications. In classic SPE (Solid Phase Extraction) columns, POREX® PTFE Frits facilitate column flow through; allow for organic solvent filtration and high sensitivity analyses. Specially treated PTFE frits used in protein precipitation & crash plate applications help improve the removal of unwanted proteins from biological samples.



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