Protective Vents

SNAP-IN SERIES

Fast, reliable installation and durable protection for enclosures of all sizes

Venting for Protection

Harsh or changing environmental conditions cause pressure changes that can stress outdoor enclosure seals to failure, allowing contaminants to enter and damage sensitive electronics.

GORE® Protective Vents effectively equalize pressure and reduce condensation in sealed enclosures, while keeping out solid and liquid contaminants. They can improve the safety, reliability and service life of outdoor electronic devices.

A Venting Portfolio for Any Application

GORE® Protective Vents Snap-In Series delivers robust venting performance and consistent, long-lasting protection, even in very harsh environments. Engineered for use in high-throughput (semi- or fully-automated) production lines, they also allow quick and easy manual installation. All Snap-In Series vents are manufactured with 100% in-line quality inspections; most are individually laser-marked for full product traceability. Four PolyVent performance options meet diverse application needs:

- **GORE® PolyVent Supra** is the low-profile solution for enclosures with limited space for vent installation, and volumes up to 0.5 liters.
- NEW **GORE® PolyVent InSet** offers fast, economical integration, and the option to inside-mount for nearly-invisible installation. For enclosure volumes up to 2 liters.
- **GORE® PolyVent Standard** offers reliable performance in many applications, for enclosure volumes up to 5 liters.
- **GORE® PolyVent High Airflow,** in hydrophobic or oleophobic versions, delivers high airflow for enclosure volumes up to 30 liters.



Realize the Benefits of GORE® Vents Snap-In Series:

- **Fast installation on any production line:** automated, semi-automated or manual.
- **Reliable performance:** snap-in construction securely seats and seals the vent to the housing.
- **Durable protection:** even after immersion, the GORE™ Membrane blocks contaminant ingress.
- **Rugged durability:** engineered for chemical and temperature resistance, and hydrolytic stability.

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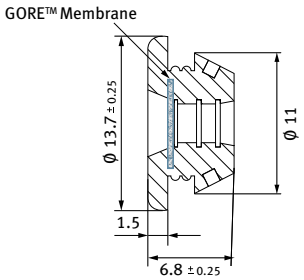
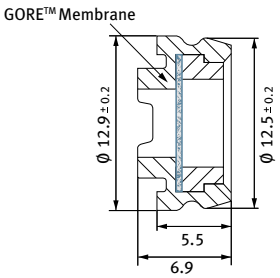
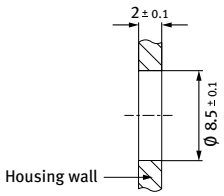
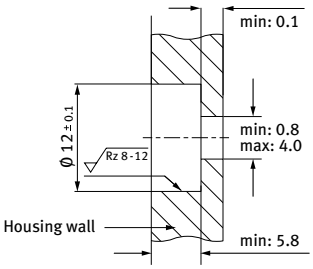
Product Information





Product Name	PolyVent Supra	PolyVent InSet
Product Number	**VE0006GSV**	**PMF200271**
Product Performance Characteristics		
Typical airflow	35 ml / min (dp = 70 mbar)	200 ml / min (dp = 70 mbar)
Laminate: membrane / backing material	ePTFE / Polyester (PET)	ePTFE / –
Membrane characteristic	Oleophobic	Oleophobic
Vent body & cap: material	Silicone	Outer hull: Silicone / Carrier ring: PA
Vent body & cap: color	Black	Outer hull: clear / Carrier ring: black
O-ring material	–	–
Installed height (to the inside)	1.5 mm	1.4 mm
Installed height (to the outside)	1.5 mm	0.0 mm (when inside-mounted)
Traceability	No	No
Design and Dimensions		
Units are in mm		
Recommended Installation		
Units are in mm • Install on a flat, vertical housing surface where water or other contaminants will not pool. • Install vent with cap on exterior of housing. • New PolyVent InSet is designed to be mounted from inside the enclosure. (It can also be mounted from outside, but inside-mounting is recommended.)		

Environmental Performance

GORE® Vents Snap-In Series have been tested by independent laboratories and have been verified to meet these performance standards.

All certificates are available upon request.

Ingress Protection Testing

Vent protection against ingress of particulates and water

Method:

- **IEC 60529**
  - IP65 (PolyVent Supra only)
  - IP66 (PolyVent InSet, Standard and High Airflow only)
  - IP67
  - IP68 (extended immersion: 2 meters for 1 hour)
  - IP69k (PolyVent Standard and High Airflow only)

Temperature Testing

Vent durability in a range of temperatures

Methods:

- **IEC 60068-2-1** (to -40 °C)
- **IEC 60068-2-2** (to +125 °C)
- **IEC 60068-2-14** (cycling: -40 °C to 125 °C)

Humidity Testing

Vent durability in hot, humid environments (accelerated aging test)

Method:

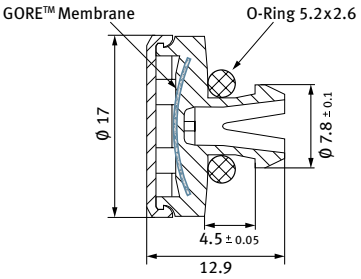
- **IEC 60068-2-78**

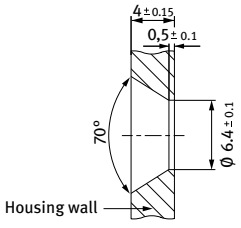
Test conditions:

- 85 °C
- 85% relative humidity
- 1,000 hours



PolyVent Standard	PolyVent High Airflow	
PMF200128	**PMF200484**	**PMF200521**
450 ml / min (dp = 70 mbar)	2500 ml / min (dp = 70 mbar)	2000 ml / min (dp = 70 mbar)
ePTFE / Polyester (PET)	ePTFE / Polyester (PET)	ePTFE / Polyester (PET)
Oleophobic	Hydrophobic	Oleophobic
Polybutylene Terephthalate (PBT)	Polybutylene Terephthalate (PBT)	Polybutylene Terephthalate (PBT)
Black (similar to RAL 9004)	Black (similar to RAL 9004)	Black (similar to RAL 9004)
EPDM 50 Shore A	EPDM 50 Shore A	EPDM 50 Shore A
2.9 mm	2.9 mm	2.9 mm
5.7 mm	5.7 mm	5.7 mm
Yes: Individually laser-marked	Yes: Individually laser-marked	Yes: Individually laser-marked





Salt Fog Testing

Vent resistance to salty environments

Methods:

- **IEC 60068-2-11** (salt fog)
- **IEC 60068-2-52** (cyclic salt fog)

Corrosive Gas Testing

Vent durability in corrosive gas environment (e.g., NO_x, SO_x, H_2S, Cl_x)

Method:

- **GR-3108-CORE**

Vibration Testing (not applicable to PolyVent Supra)

Vent resistance against vibration

Method:

- **ETSI EN 300 019-2-2**
- **IEC 60068-2-64**

Flammability Testing

Resistance to open flame and radiant heat

Method:

- **UL 94 V-0** PolyVent InSet carrier ring
- **UL 94-HB** PolyVent Standard and High Airflow caps and bodies

UV Resistance Testing (not applicable to PolyVent Supra)

Vent resistance to ultraviolet light

Method:

- **ASTM G155-05a (1,000 hours)**

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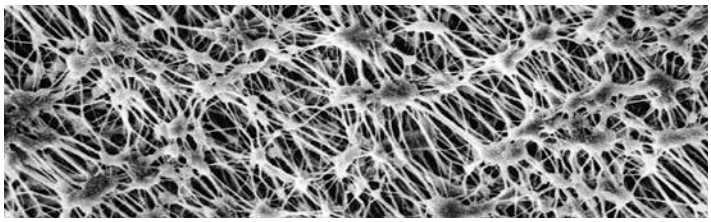
The Science Behind the Solution

GORE® Protective Vents incorporate a membrane of expanded polytetrafluoroethylene (ePTFE). This unique membrane is constructed with billions of pores 700 times larger than an air molecule. These pores allow air to flow freely in and out of the housing, which prevents stress on seals. At the same time, the membrane pores — which are 20,000 times smaller than a drop of water — serve as a barrier against water, dirt and debris. GORE® Protective Vents can be designed with a variety of specific properties for maximum performance in any venting application.

The GORE™ Membrane is:

- chemically inert
- non-shedding
- UV-resistant
- temperature-resistant



Gore's expanded PTFE membrane magnified 40,000 times.

RoHS Information

W. L. Gore & Associates declares that the products listed in this document are below the thresholds established in EU Commission Decision Directive 2011/65/EC, Directive 2002/95/EC (RoHS) and Directive 2003/11/EC.

About W. L. Gore & Associates

Well known for waterproof, breathable GORE-TEX® fabric, Gore is a technology-driven company focused on product innovation. The company's portfolio includes everything from high-performance fabrics and implantable medical devices to industrial manufacturing components and aerospace electronics. Gore products have remained at the forefront of creative solutions because they are engineered specifically for challenging applications requiring durable performance where other products fail.

For almost thirty years, Gore has delivered venting solutions for a variety of applications installed in rugged environments throughout the world — applications such as solar, lighting, security, telecommunication and other electronic systems; automotive and heavy-duty vehicles; and chemical and agricultural packaging. Engineered with the latest materials and technology, GORE® Protective Vents are backed by years of research and testing to help extend product life and enhance reliable performance – all to ensure that these venting products maximize performance and extend the life of products used in the most demanding applications.

Headquartered in the United States, Gore employs approximately 10,000 associates in 30 countries worldwide. In Europe, Gore started its first business operations only a few years after the Enterprise's founding in 1958.

Learn more at gore.com.

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