



WHY CHOOSE A GORE® ACOUSTIC VENT?

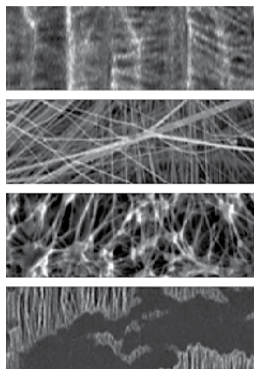
Selecting the right acoustic vent for an electronic device requires a balance between the level of protection the vent supplies, and what the vent contributes to the overall sound performance of the acoustic system.

Whether you choose a standard or custom venting solution, we can help you achieve the optimal balance of acoustic transparency and environmental protection.

The Right Materials, Expertly Engineered for the Demands of Your Application

Exceptional Sound Quality with the GAW300 Series of GORE® Acoustic Vents for Immersion Protection

GORE® Acoustic Vents for immersion applications are engineered from expanded polytetrafluoroethylene (ePTFE), a materials technology with a unique structure that optimizes vent performance and device reliability.



ePTFE construction of
GORE® Acoustic Vents as
seen under magnification

ePTFE Structure

The ePTFE structure consists of nodes, fibrils and pores. This structure facilitates the transmission of air and sound, while effectively repelling water, other fluids and particulates.

Acoustic Transparency

For acoustic applications, we have engineered a special ePTFE membrane that is thin and low-mass for optimal transmission of sound. It vibrates easily and quickly in response to sound waves, converting their airborne energy to mechanical vibrations. These vibrations are reproduced on the other side of the membrane to create high-quality acoustics.

Pressure Equalization

The optimal transmission properties of ePTFE also enable the vent structure to rapidly equalize pressure changes, protecting sensitive electronics against condensation and minimizing stress on device seals.

Environmental Protection

Immersion Protection: Although ePTFE membrane is thin, its unique structure is engineered to repel water effectively and protect devices against immersion up to IP68 standards.

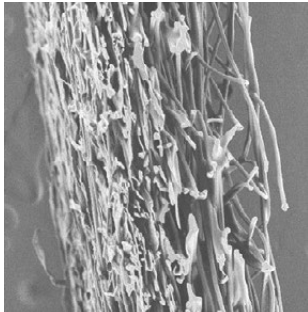
Fluid Resistance: Gore has developed oleophobic venting materials that effectively repel oils, sweat, cleaning solutions and other common fluids that can threaten ordinary vent materials and device reliability.

Exceptional Protection with GORE® Acoustic Vents For Dust and Splash Applications

GORE® Acoustic Vents for dust and splash protection are designed from non-woven structures. Unlike woven materials, Gore's non-woven materials are engineered specifically for protecting portable electronics. These products deliver the best dust and splash protection on the market at their given acoustic level.

Small Particle Protection

Gore's non-woven vent structures use a complex, three-dimensional microstructure that creates a tortuous



GORE® Acoustic Vents for dust and splash protection as seen under magnification

path to trap even small particles with much greater efficiency than ordinary woven mesh vents. While woven vents provide only a single layer of protection for a defined pore size, the complex structure of Gore's non-woven material creates a more effective barrier to particles of varied sizes.



Water Spray Protection

The three-dimensional structure of Gore's non-woven material, combined with its tortuous path construction, provides a higher level of spray protection for a given acoustic performance. The IPx4 test standard for spray protection typically requires a high-performance vent as well as a housing designed to divert water and help block spray. Gore has developed a spray test to simulate a single nozzle from an IPx4 test to help customers understand a venting material's efficiency at preventing water ingress independent of housing design.

Oleophobic Protection

As with our ePTFE structures, oleophobic materials developed by Gore are also available in our non-woven structures. These materials are extremely effective at resisting a range of common fluids (from perspiration and oils to cleaning solutions) that could degrade ordinary vent materials and device reliability.

For more information on acoustic vent technology, click over to gore.com/portableelectronics and see these articles:

- [PDF](#) How to select an Acoustic Vent?
- [PDF](#) How to design with GORE® Portable Electronic Vents?

Contact Gore to learn about the right GORE® Portable Electronic Vent for your unique application.

Why Choose GORE® Portable Electronic Vents for Your Electronic Devices?

Leading OEMs have specified over 5 billions of GORE® Portable Electronic Vents because they know our products and services can help accelerate their development of innovative and differentiated devices in fast-paced, highly competitive markets.



Product & Application Leadership

Grounded in a deep understanding of material science and acoustics, Gore can provide the optimum venting solution. We balance trade-offs between diverse problems such as adverse operating environments, immersion events and acoustic performance.



Reliable Performance

To ensure products are “fit for use”, every Gore product must adhere to the highest standards of quality, performance and reliability. Through a comprehensive understanding of end-use applications and requirements, our products do what they say they will do.



Fast Development

The mobile electronics industry develops and releases new products quickly. Our fast response to customer requests during the development process sets us apart. Gore supports this need for quickness with designs and prototypes to ensure engineering teams can meet their project timelines and their application requirements.



Supply Security

Leading OEMs specify Gore because we have consistently proven our ability to quickly ramp up to supply vents for projects of over 10 million devices per year and to continue to supply high quality products on-time without disruption.



Material Science

Gore is a global materials science company dedicated to transforming industries and improving lives. Gore develops materials with microporous structures that provide desirable attributes and performance characteristics to engineer vents and other products used in a variety of markets and industries.



Global Support

Our global teams of sales associates, application engineers, manufacturing engineers, and research personnel enable us to provide agile and robust support to customers around the world.

About Gore

W. L. Gore & Associates is a global materials science company dedicated to transforming industries and improving lives. Since 1958, Gore has solved complex technical challenges in demanding environments — from outer space to the world’s highest peaks to the inner workings of the human body. With more than 12,000 Associates and a strong, team-oriented culture, Gore generates annual revenues of \$4.5 billion.

gore.com

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