

GORE® Acoustic Vent and
GORE® Pressure Vent for
10 ATM smartwatches



LET THEM KNOW THEY CAN.

Pushing Boundaries to Inspire Customers.

Advances in mobile electronics are constantly pushing the boundaries of what's possible, allowing customers to enjoy new opportunities from innovative brands. As a company operating in this industry, it's crucial to go beyond what customers have seen before, opening doors to new worlds they've only dreamed of.

Imagine giving your customers the freedom to dive to a depth of 100 meters with their smartwatches without compromising performance or audio quality. Our advanced GORE® Pressure Vents and GORE® Acoustic Vents make this possible. By harnessing the latest technology, W. L. Gore & Associates empowers you to inspire your customers. Let them know they can.

Together, improving life

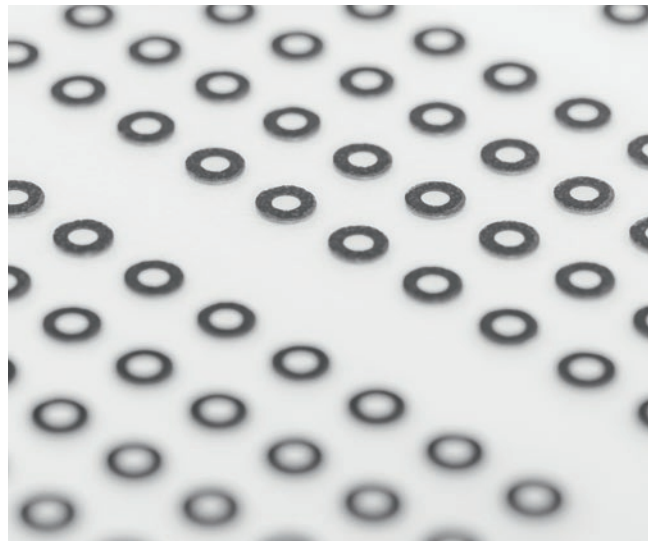


Let them know they can go deeper with advanced GORE® Pressure Vents

Changes in temperature or depth can create a pressure differential between the external environment and a device's interior. This can weaken the gaskets and seals of the device, ultimately lowering its resistance to leaks. Pressure buildup can also affect speakers or pressure sensors, reducing acoustic quality and damaging the transducers.

The latest GORE® Pressure Vent overcomes these challenges, allowing smartwatch users to dive to a depth of 100 meters for 15 minutes. The greater the change in depth, the greater the implications. Our pressure vent offers the ultimate protection to help decrease component defects.

GORE® Pressure Vents are engineered for maximum airflow and ingress protection. By optimizing the venting material, vent size, volume and equalization, users can enjoy the best speaker acoustic experience, even in the most challenging places.



UNPARALLELED AIRFLOW PERFORMANCE
OUTSTANDING PRESSURE EQUALIZATION PERFORMANCE
 PE 17 (WHITE): 290 ML/MIN/CM² @ 0.07 BAR
 TYPICAL AIRFLOW



OLEOPHOBIC MEMBRANE TO PROVIDE OIL RESISTANCE



A WIDE RANGE OF CUSTOM PART OPTIONS

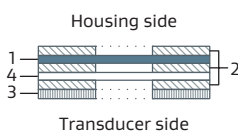
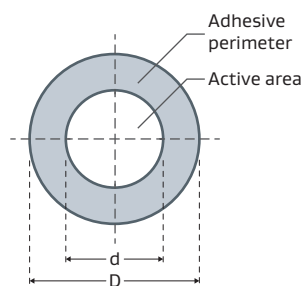


DEEPER IMMERSION PROTECTION
 WEARABLE DEVICES CAN BE PROTECTED FROM WATER AT A DEPTH OF 100 METERS FOR 15 MINUTES



MEETS LEADING CUSTOMER REQUIREMENTS FOR THERMAL CYCLES

Product Information



- d: Inner diameter
- D: Outer diameter
- 1: ePTFE membrane
- 2: Adhesive
- 3: Support material
- 4: Woven mesh

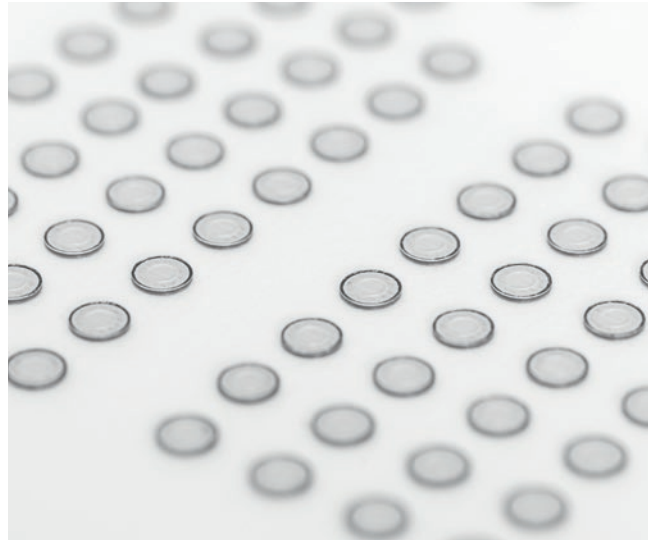
	GORE® Pressure Vent	GORE® Acoustic Vent
Series	PE17	GAW346
Application	Deep Immersion Wearables	Deep Immersion Wearables
ISO rating (ISO 22810) ¹	100 m water @ 15 min ²	100 m water @ 15 min ³
Typical airflow (dp = 70 mbar)	290 ml/min/cm ²	N.A.
Insertion loss @ 1kHz ⁴	N.A.	< 4 dB I.D. 2.0 mm
Reference thickness ⁵	0.42 mm	0.40 mm
Adhesive type ⁶	Acrylic	Acrylic
Membrane type	ePTFE	ePTFE
Membrane characteristic	Oleophobic	Oleophobic
Membrane color	White	White
Support material	PET	PET
Adhesive temperature range	-40 °C to 100 °C	-40 °C to 100 °C
RoHS ⁷	Meets threshold requirements	Meets threshold requirements

Let them know they can discover new worlds with premium **GORE® Acoustic Vents**

Reliable water resistance typically involves a reduction in audio quality. A water-resistant device needs openings to transmit sound efficiently. These apertures often allow water to enter, impacting performance.

GORE® Vents are oleophobic and provide a certain level of oil resistance. Now smartwatch users can enjoy water resistance to a depth of 100 meters for 15 minutes and still receive crystal-clear sound from their device afterward. With our latest GORE® Acoustic Vent innovation, your customers don't need to compromise.

As the leading provider of acoustic vents, Gore has successfully resolved the trade-off between water resistance and enhanced audio quality.



DEEPER IMMERSION PROTECTION

WEARABLE DEVICES CAN BE PROTECTED FROM WATER AT A DEPTH OF 100 METERS FOR 15 MINUTES



STABLE ACOUSTIC PERFORMANCE

<4DB@1KHZ (ID 2.0MM)



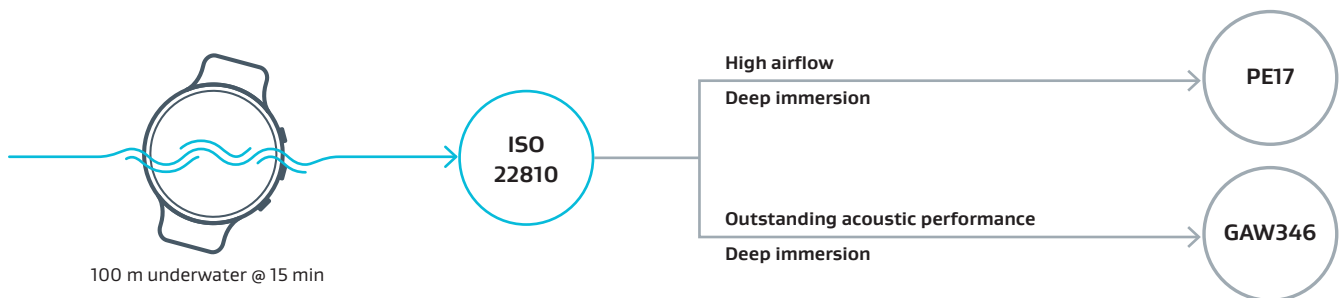
OLEOPHOBIC MEMBRANE TO PROVIDE OIL RESISTANCE



A WIDE RANGE OF CUSTOM PART OPTION



MEETS LEADING CUSTOMER REQUIREMENTS FOR THERMAL CYCLES



1. In compliance with ISO 22810:2010(E) test method 4.3.2 Water resistance to overpressure.
2. Extended immersion rating: 100 m water immersion for 15 minutes with back pressure on captive ring.
3. Part I.D.2.0 mm/O.D. 4.2 mm with back pressure on captive ring.
4. Average value tested using a typical MEMS microphone system. Design of the device will affect final performance.
5. Actual thickness may vary due to the compressibility of nonwoven, ePTFE and adhesive layers.
6. A wide range of options available as a custom product.
7. To the best of our knowledge, the parts listed above do not have any restricted substances above the maximum concentration values listed in RoHS Directive 2011/65/EU.

This information is based on our current level of knowledge and does not constitute a representation or warranty beyond those contained in our standard terms and conditions.

Scan to contact Gore



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 knows how to balance the trade-offs between diverse problems such as adverse conditions, immersion and acoustic performance to provide the optimum venting solution.



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 exactly what they say they will do.



Material Science

Gore is a global materials science company committed to transforming industries and improving lives. Our expertise in developing materials with microporous structures enables us to engineer vents and other products with the right attributes and performance characteristics across a wide range of markets and industries.



Fast Development

We understand that the mobile electronics industry moves quickly. Our fast response to customer requests during the development process sets us apart. Gore supports your need for rapid solutions with designs and prototypes to ensure engineering teams meet project timelines and application requirements.



Supply Security

Gore’s ability to quickly supply vents for orders of over 10 million devices a year is recognized and proven. Our commitment to delivering high-quality products on time without disruption makes us a reliable partner for any project.



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 worldwide.



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 13,000 Associates and a strong, team-oriented culture, Gore generates annual revenues of \$4.8 billion.

A materials science company dedicated to transforming industries and improving lives

Learn more at [gore.com/portableelectronics](https://www.gore.com/portableelectronics)

FOR INDUSTRIAL USE ONLY. Not for use in food, drug, cosmetic or medical device manufacturing, processing, or packaging operations.

All technical information and advice given here is based on Gore’s previous experiences and/or test results. Gore gives this information to the best of its knowledge, but assumes no legal responsibility. Customers are asked to check the suitability and usability in the specific application, since the performance of the product can only be judged when all necessary operating data are available. The above information is subject to change and is not to be used for specification purposes. Gore’s terms and conditions of sale apply to the sale of the products by Gore.

GORE, *Together, improving life* and designs are trademarks of W. L. Gore & Associates. © 2023 W. L. Gore & Associates GmbH

INTERNATIONAL CONTACTS

Australia +61 2 9473 6800
Benelux +49 89 4612 2211
China +86 21 5172 8299
France +33 1 5695 6565
Germany +49 89 4612 2211

India +91 22 6768 7000
Italy +39 045 6209 240
Japan +81 3 6746 2570
Korea +82 2 393 3411
Mexico +52 81 8288 1281

Scandinavia +46 31 706 7800
Singapore +65 6733 2882
South America +55 11 5502 7800
Spain +34 93 480 6900
Taiwan +886 2 2173 7799

United Kingdom +44 1506 460123
USA +1 410 506 7812

W. L. Gore & Associates, Inc.
401 Airport Road · Elkton, MD 21921 · USA
T +1 410 506 7812 (USA) **Toll free** +1 800 523 4673 **F** +1 410 506 8749 **E** portableelectronics@wlgore.com
[gore.com/10atm-vents](https://www.gore.com/10atm-vents)

