



Case Study: GORE® Pressure Vents for 10 ATM Smartwatches

Dive Deeper: Empowering Smartwatches with 10 ATM Water Resistance



? CHALLENGE

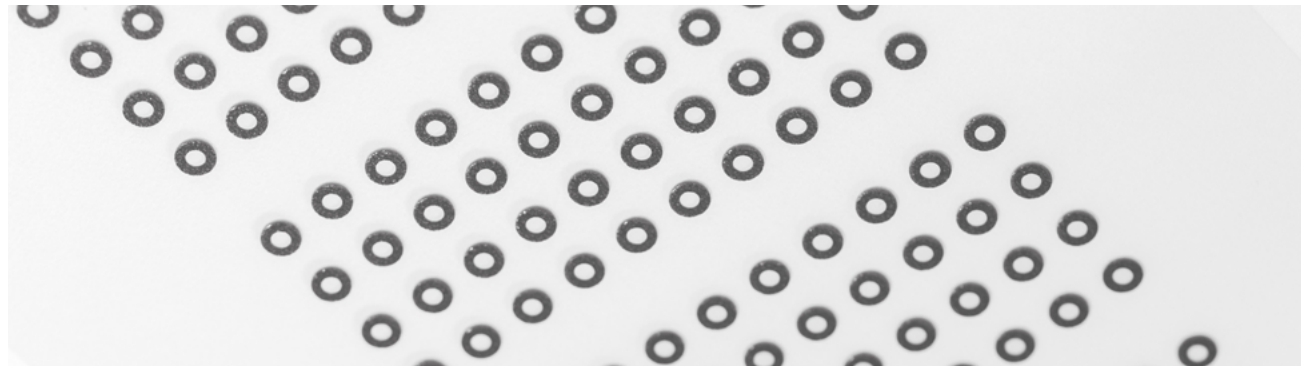
As consumer demand **continually pushes the boundaries** of wearable technology, achieving enhanced water resistance has become a critical goal for OEMs designing high-performance smartwatches. However, moving from the industry-standard 5 ATM rating to a **groundbreaking 10 ATM water resistance posed significant challenges in both design and material engineering.**

Hoping to differentiate themselves in a highly competitive market, a leading smartwatch OEM embarked on this ambitious endeavor. Knowing of Gore's unparalleled technical expertise in venting solutions, the OEM naturally turned to us for collaboration.

"Meeting a 10 ATM standard is a delicate matter, requiring not just design expertise but also advanced material science. There are not many suppliers who can provide the necessary expertise to meet these demanding requirements."



Julie Choi, Field Sales Associate





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SOLUTION

Gore responded to this challenge with its **newly developed 10 ATM membrane technology**. The innovative GORE® Pressure Vent for 10 ATM Smartwatches provides superior water resistance while maintaining optimal airflow, ensuring reliable pressure equalization.

Developing this innovative solution required rigorous testing and collaboration. When challenges arose during multiple testing phases, **Gore's engineers engaged closely with the customer's team** to seamlessly address these issues. Testing reports were meticulously prepared and shared with the customer, ensuring complete transparency. Ultimately, Gore's solution passed the OEM's stringent requirements and was approved for mass production. Paired with a **well-stocked supply of raw materials**, this strong collaboration enabled Gore to answer the customer's demands in time and meet the schedule.

Recognizing the integral role of the contract manufacturer (CM) in bringing the product to market, Gore actively built a partnership not only with the OEM but also with the CM. As they were the ones to handle the venting solution in mass production, Gore valued the CM's feedback to continuously enhance the membrane's workability for the assembly process. This holistic approach included **site visits as well as detailed feedback sessions** and was highly appreciated by the CM.

"Our customer has been working with us for several years now. Because of this, they know they can trust our products' performance and reliability."



JS Lee, Application Engineer

THE TECHNOLOGY BEHIND THE SOLUTION: GORE® PRESSURE VENTS FOR 10 ATM SMARTWATCHES

The OEM sought to deliver an extraordinary user experience, enabling divers to explore up to 100 meters underwater with confidence. GORE® Pressure Vents made this possible by offering:

- Unmatched reliability in underwater conditions.
- An optimal balance between airflow and water protection.
- Customizable designs tailored to diverse product requirements.

For more details on specifications and installation guidelines, visit: gore.com/10atm-vents



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★ RESULTS

The strong partnership between Gore, the OEM, and the CM proved critical to the project's success.

Gore's proactive approach to addressing challenges and ensuring readiness for mass production resulted in:

- A successful launch of our customer's first 10 ATM smartwatch.
- On-schedule processes by the timely delivery of venting solutions.
- Strengthened trust with the OEM and their contract manufacturer.

"Achieving a 10 ATM smartwatch was a milestone for our customer, and we are proud to have played a key role in its success. With over 10 years of collaboration in smartwatch development, we look forward to continuing our partnership and supporting future innovations."



Julie Choi, Field Sales Associate

WANT TO KNOW MORE?

To learn more about Gore venting solutions, visit our website: gore.com/pressure-vents

Or check out more of our case studies: gore.com/mestories



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

Leading OEMs have purchased over 10 billion 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 AND 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.

Interested in Testing Our Products or Talking to Our Experts?

For additional assistance, please contact a Gore representative.

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