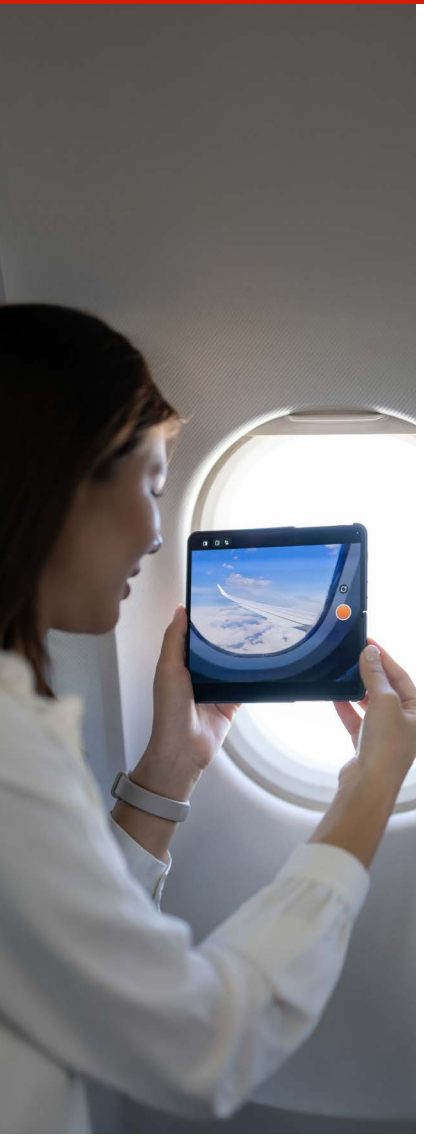
Case Study: GORE® Pressure Vents for Slim Foldable Phone

Reliable Venting Saves Launch of Next-Level Foldable Phone



CHALLENGE

A leading global smartphone manufacturer was on the verge of launching its most innovative product yet: an ultra-thin, foldable phone designed to set a new benchmark in the market. However, the project faced a significant setback during final testing. **The competitor's venting solution failed the device's critical waterproof test.**

With only a few weeks until scheduled mass production, the team faced a crisis. A delay would mean missing the launch window and incurring significant costs. The manufacturer needed a new, proven venting solution — and a partner who could deliver it without hesitation.



"The customer came to us with a critical challenge. Their initial component was failing waterproof testing, and with the launch just a couple of weeks away, time was a critical factor. They couldn't afford to wait."

Eric Chu, Field Sales Associate at Gore

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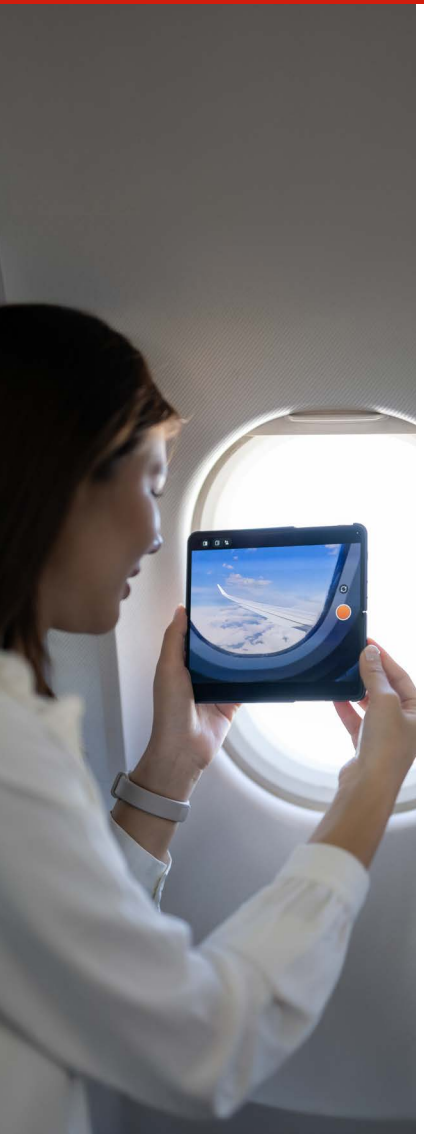


SOLUTION

The device's **ultra-slim, foldable design** presented a unique engineering challenge: It required exceptionally high airflow while also meeting high waterproofing requirements. Understanding this critical need and the project's urgency, Gore's team immediately mobilized.

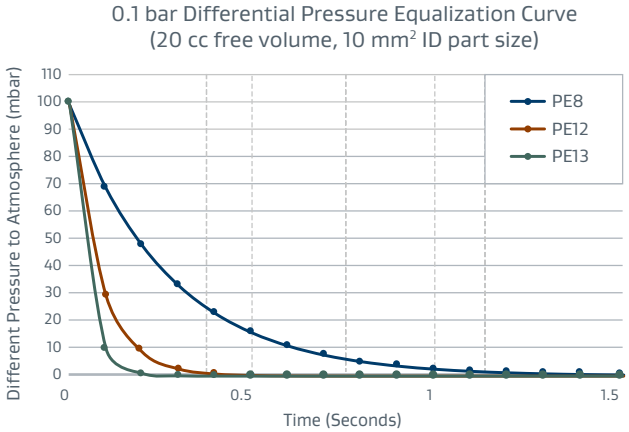
They knew the **GORE® Pressure Vent PE13 was the perfect fit** and, within days, provided samples as well as comprehensive test data. The collaboration then moved on-site, where Gore's application engineers worked hand-in-hand with the customer's team to ensure seamless integration. This support included developing a detailed checklist and training to guarantee optimal performance from the start.

THE TECHNOLOGY BEHIND THE SOLUTION: GORE® PRESSURE VENTS FOR PORTABLE ELECTRONICS

The GORE® Pressure Vent PE13 was the ideal choice for the demanding environment of the foldable phone in question. Its ePTFE membrane provides a reliable barrier against liquids while allowing air and other gases to pass through, thus equalizing pressure and protecting sensitive internal components.

- **Unmatched Airflow:** Delivers the highest airflow in the GORE® Pressure Vent portfolio, enabling rapid pressure equalization in slim, complex devices.
- **Reliable Immersion Protection:** Provides durable waterproofing that meets IP68/69 standards, protecting the device from water ingress.
- **Superior Oleophobic Performance:** Features an advanced anti-contamination coating that repels oils and common liquids to ensure long-term functionality.

For specifications and installation guidance, please visit: gore.com/pressure-vents



The PE13 has the highest airflow in Gore's portfolio, making it the ideal choice for the client's foldable smartphone.

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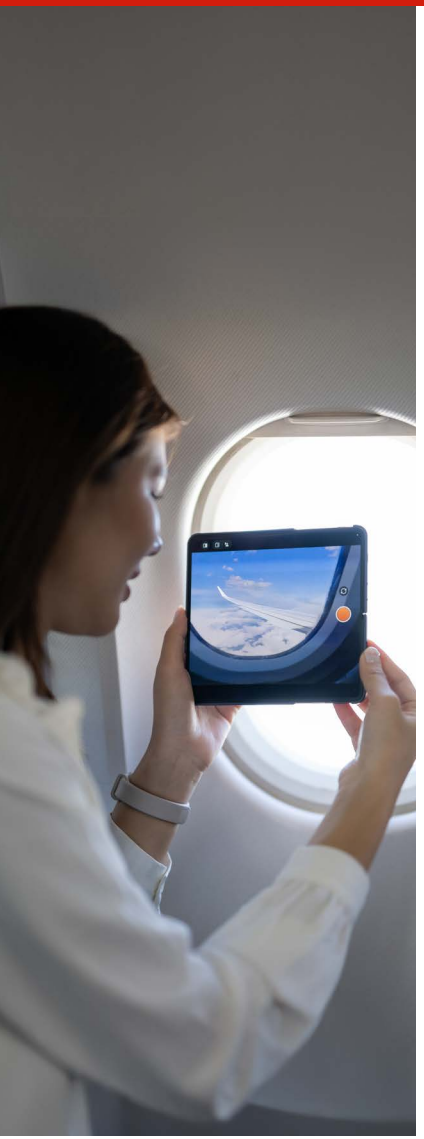
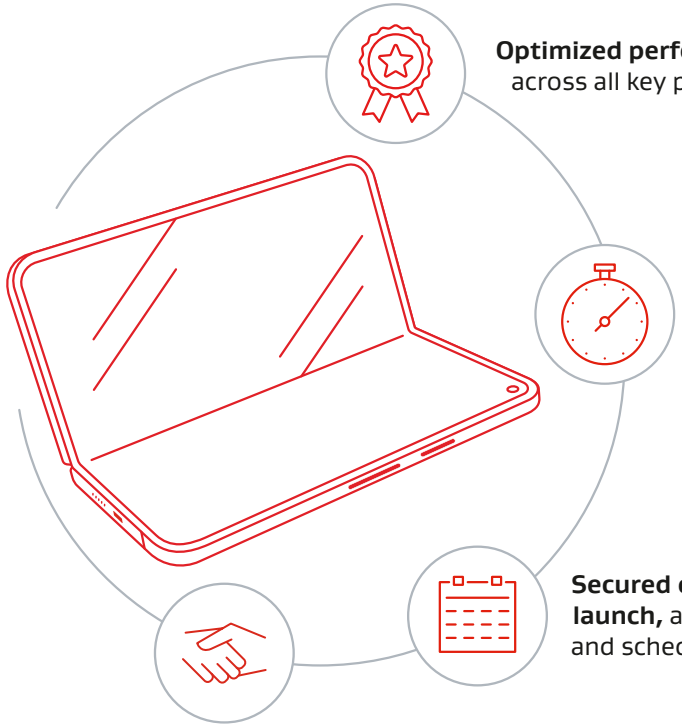


RESULTS

By partnering with Gore, the manufacturer not only solved its immediate crisis but also enhanced the final product:



Optimized performance and durability across all key parameters.

Lower total cost of ownership by integrating a more reliable vent to reduce field failures.

Secured on-time market launch, avoiding costly production and scheduling delays.

Strengthened partnership between Gore and their customer, building the foundation for future projects.



"This success stems from our commitment to materials science and innovation. This was a unique, high-airflow application, and because we continuously develop advanced materials like the PE13, we had the right solution ready at the exact moment our customer needed it."

Kelvin Wei, Application Engineer at Gore

WANT TO KNOW MORE?

Visit our site to see how GORE® Pressure Vents for Portable Electronics can help you achieve your design goals: **gore.com/pressure-vents**

Or explore additional 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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