

## **Resonac to Strengthen Production System for High-Purity Hydrogen Fluoride (HF) Gas for Semiconductors**

~ Production to Begin in 2026 at Tokuyama Plant  
to Meet Growing Semiconductor Demand ~

Resonac Corporation (President and CEO: Hidehito Takahashi; hereinafter "Resonac") announces that it will newly launch production of high-purity hydrogen fluoride (HF) gas at its Tokuyama Plant (Shunan City, Yamaguchi Prefecture, Japan) within 2026. Combined with its existing production at the Kawasaki Plant (Kawasaki City, Kanagawa Prefecture, Japan), Resonac plans to establish a two-site production system in Japan. This product is used in the etching process of semiconductor circuits and is seeing increasing demand in advanced technologies such as cryogenic etching, which enables high-precision processing of fine semiconductor structures. Resonac will strengthen its supply system to ensure stable supply.

High-purity gases are essential materials used in the front-end semiconductor manufacturing process for circuit formation on wafers, and demand for these gases has been increasing in line with the expansion of the semiconductor market. In particular, driven by the growth of data centers and AI-related applications, semiconductor devices are increasingly adopting three-dimensional, high-density integration structures. These structures require technologies capable of forming deep and fine features that penetrate multiple stacked layers with high precision.

Cryogenic etching has attracted attention as a key technology to meet these requirements. By performing etching under extremely low-temperature conditions, this technique enables processing while protecting sidewalls, thereby allowing the formation of deeper, smoother, and more precise microstructures than conventional methods.

High-purity hydrogen fluoride gas plays an important role in such advanced etching processes, including the removal of oxide films. As cryogenic etching technologies become more widespread, higher levels of purity and stable supply are increasingly required. This product is expected to support the formation of fine and deep circuit structures required for advanced semiconductor processes, and demand for it is projected to grow going forward.

In response to this market environment, Resonac plans to begin production of this product at its Tokuyama Plant within 2026 to strengthen its supply capacity in line with growing demand. Resonac offers a broad lineup of high-purity gases used in semiconductor manufacturing processes, covering both etching and film deposition applications. Through this initiative, Resonac will continue to meet the needs of the expanding semiconductor materials market, respond promptly to customer requirements, and contribute to the development of the semiconductor industry.

[About Resonac]

Resonac is a functional chemical company established as a result of the integration of Showa Denko and former Hitachi Chemical in January 2023. The Company's sales revenue of semiconductor and electronic materials business for 2025 was about 500 billion yen. The Company is a world-class leader particularly in semiconductor materials for packaging process. The integration of the two companies has enabled Resonac to design functions of materials as well as to develop them in-house, going all the way back to raw materials. The trade name "RESONAC" was created as a combination of two English words, namely, the word "RESONATE" and "C" as the first letter of CHEMISTRY. The Company will make the most of its co-creative platform, and accelerate technological innovation with semiconductor manufacturers, material manufacturers, and equipment manufacturers inside and outside Japan.

For more details, please refer to our website.

<https://www.resonac.com/>

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