

TekSiC Introduces Xforge™ PVT: Next-Gen High-Temperature Induction Heating Furnace for Advanced Physical Vapor Transport (PVT) Crystal Growth

Experience precise and versatile Silicon Carbide crystal growth when and where you need it with the Xforge™ PVT. This next-generation, compact high-temperature induction heating furnace is engineered for exceptional performance in crystal growth using Physical Vapor Transport (PVT).

Linköping, Sweden – February 18, 2025 – TekSiC proudly presents the Xforge™ PVT, a groundbreaking high-temperature Induction Heating Furnace crafted to meet the rigorous demands of semiconductor industries and research institutes. With its state-of-the-art design and exceptional performance, the Xforge™ PVT revolutionizes PVT process development and operation. It offers versatile configurations, ensuring peak performance across diverse specialized applications.

A Vision for Innovation: The Xforge™ PVT Story

Xforge™ PVT is a member of TekSiC's Xforge™ platform. The journey to creating the Xforge™ began with a bold vision: to design a furnace that delivers exceptional heating capabilities while maintaining flexibility for a variety of high-temperature applications. TekSiC's engineers faced the challenge of balancing size, power, and modularity. Through extensive research and testing, they developed a compact, highly efficient furnace that ensures consistent and precise heating for a diverse range of materials and processes.

"The Xforge™ PVT is a pivotal advancement in our company's journey," says Joachim Tollstoy, CEO of TekSiC. "It reflects our commitment to innovation and is designed to adapt to the specialized needs of semiconductor industries and research institutes. We built it to deliver exceptional performance with a modular design that allows for tailored solutions to meet each customer's requirements. We are excited to use the Xforge™ PVT daily in our own SiC growth program!"

Key Features of the Xforge™

- **Compact, Modular Design:** The Xforge™ PVT is designed with a compact, modular architecture that allows for easy customization, enabling users to adjust the furnace's features to suit their specific PVT application. This flexibility guarantees optimal performance and efficiency, eliminating the need for bulky, one-size-fits-all solutions. The small footprint and excellent stack ability of the Xforge™ PVT significantly pushes the number of furnaces that can fit into your production facility.
- **Versatile Usage:** Perfectly suited for both industrial and research applications, Xforge™ PVT, is designed for customers engaged in developing growth processes for SiC crystal with up to 200 mm in diameter. It is fully prepared for integration into large-scale SiC production.
- **Advanced Process Control:** The induction-heated Xforge™ PVT system is equipped with high-quality components to provide precise temperature and pressure control, ensuring outstanding stability during the SiC crystal growth process. With advanced data sensing

capabilities, it supports machine learning applications through the latest communication protocols.

- **Quality Tested and Field Proven:** The Xforge™ PVT has undergone extensive industrial reliability testing at customer sites over several years, proving its durability in extreme high-temperature applications. It is CE-marked, ensuring compliance with strict EU health, safety, and environmental regulations.
 - **Built in Sweden with Precision Craftsmanship:** Designed and manufactured in Linköping, Sweden—a global center for semiconductor research and silicon carbide crystal growth—the Xforge™ PVT leverages TekSiC's decades of expertise in material science and system engineering. Each unit is crafted with meticulous care, ensuring exceptional quality and reliability.
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Now Available for Delivery

Xforge™ PVT is now available for immediate delivery. Detailed product specifications and application guidelines are available on TekSiC's website at www.teksic.com. The TekSiC team is ready to assist customers in selecting the right configuration for their specific needs. This also includes process simulation and optimization to ensure the most efficient solution.

TekSiC is looking for resellers around the world and interested companies should send their request to sales@teksic.com

About TekSiC

Founded in 2021, TekSiC is a leading innovator in semiconductor materials and related systems, with a focus on silicon carbide (SiC) technologies. Based in Linköping, Sweden, TekSiC traces its roots to the pioneering work of Jöns Jacob Berzelius, the scientist who first synthesized SiC over 200 years ago. With a founding team bringing extensive expertise from semiconductor research, crystal growth, advanced materials science and system engineering, TekSiC is at the forefront of SiC technology development and system engineering for other high temperature material applications.

The company builds on a rich legacy of collaboration with world-class institutes, driving breakthroughs in high-performance materials and applications.

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