SINTX Technologies Signs Supply Agreement with EVONIK to Manufacture Silicon Nitride–PEEK Compound for AI-Assisted, 3D-Printed Patient-Specific Implants

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Milestone enables immediate production of SiN/PEEK custom devices

SALT LAKE CITY, Utah, Dec. 01, 2025 (GLOBE NEWSWIRE) -- SINTX Technologies, Inc. (NASDAQ: SINT) ("SINTX" or the "Company"), an advanced ceramics and biomaterials company, today announced that it has signed a supply agreement with Evonik Corporation ("EVONIK"), a global leader in high -performance polymers, to manufacture the Company's proprietary silicon nitride–PEEK compound (SiN/PEEK) (U.S. Patent No. 10,806,831) engineered for AI-assisted additive manufacturing of patient-specific implants that will be produced using equipment already in place at SINTX's U.S.-based production facility.

Under the agreement, EVONIK will produce SiN/PEEK compound leveraging its commercial-scale capability to SINTX's specifications, enabling the Company to immediately begin manufacturing AI-designed, 3D-printed, patient-specific implants. SINTX has already received physician requests to provide humanitarian-use vertebral body replacement (VBR) implants for orthopedic and neurosurgical oncology patients following tumor resections in the spine. In addition, the Company intends to use the SiN/PEEK compound to support regulatory clearances of patient matched and traditional subtractive manufactured implantable devices.

Eric K. Olson, Chairman, President & CEO of SINTX, said, "This agreement with EVONIK is another pivotal moment for SINTX and for the field of patient-specific implants. By combining EVONIK's industrial -scale PEEK polymer manufacturing expertise with SINTX's silicon nitride biomaterial manufacturing capabilities, we can deliver next -generation implants that address critical needs in trauma, spine, oncology, and beyond. We believe SiN/PEEK offers compelling advantages over standard PEEK, including antipathogenic surface characteristics, osteogenic potential, and improved visualization—features that matter in complex, high-risk procedures."

Marc Knebel, head of EVONIK's Medical Devices & Systems market segment, said, "We are excited to support SINTX in bringing a high-performance SiN/PEEK composite filament to market for additive and subtractive manufacturing of regulated medical devices. This is another example of enabling innovation that EVONIK has delivered to improve medical outcomes. Our collaboration is designed to provide consistent quality, supply reliability, and scalability—foundational elements for our continued broader collaboration and data generation to support future medical device market work."

Why SiN/PEEK for Patient-Specific Implants

SINTX's silicon nitride has been studied for its antipathogenic behavior and osteogenic properties, while PEEK composites are valued for radiolucency and mechanical tunability. The SiN/PEEK combination aims to deliver:

- Antipathogenic surface behavior to help reduce microbial adherence on implant surfaces.
- Osteogenic support to promote bone on-growth and integration.
- Improved visualization vs. standard PEEK for intra-operative and post-operative imaging.
- Design freedom via AI-assisted, additive manufacturing for patient-specific geometries.
- Scalable, consistent filament to support high-mix, low-volume production typical of patient-specific workflows.

With today's supply agreement, the parties envision making SiN/PEEK compound available to other qualified manufacturers for complex implant indications where silicon nitride's attributes may add clinical and economic value.

SINTX's near -term humanitarian efforts are focused on trauma and oncology indications for post-tumor resection cases, where surgeons face challenging anatomy and infection risk, and where patient-specific designs may facilitate better fit, fixation and overall clinical outcomes, stated Dr. Ryan Bock, SINTX Chief Technology Officer. "We're responding to real -world surgeon requests in oncology-related care. Our immediate focus is on humanitarian-use cases while we build the quality systems, regulatory files, and production capacity to expand into additional indications through appropriate FDA pathways."

For more information on SINTX Technologies or its materials platform, visit www.sintx.com.

About EVONIK

EVONIK Business High Performance Polymers, including its affiliate Evonik Operations GmbH, is one of the world leaders in specialty chemicals companies and active in over 100 countries. EVONIK has more than 30 major production sites in the U.S. and Canada, as well as numerous offices, labs, warehouses and distribution centers, employing about 5,000 people in North America. In 2024, the North America region generated 24% of global sales, amounting to €3.7 billion. EVONIK goes far beyond chemistry to create innovative, profitable, and sustainable solutions for customers.

About SINTX

Headquartered in Salt Lake City, Utah, SINTX Technologies, Inc. (NASDAQ: SINT) is an advanced ceramics company that develops, manufactures, and commercializes silicon nitride biomaterials, composites, devices, and related technologies for medical and other high-value applications. With thousands of medical devices implanted since 2008 and nearly two decades of peer-reviewed research, SINTX has established itself as a leader in high-performance biomaterials that enhance clinical outcomes and patient safety. Supported by a strong patent portfolio, U.S.-based manufacturing, and strategic industry partnerships, the company continues to expand its technology platform through innovation and market diversification, including the recently FDA-cleared SINAPTIC® Foot & Ankle Implant System for reconstructive surgery.

Forward-Looking Statements

This press release contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, including, without limitation, statements regarding: the Company’s ability to manufacture SiN/PEEK composite materials and patient-specific implants; the timing, scope, and expected benefits of the Company’s supply agreement with Evonik; anticipated product performance attributes of the SiN/PEEK compound and related additive-manufacturing workflows; the Company’s plans to pursue regulatory clearances for patient-specific and traditionally manufactured implantable devices; expectations regarding humanitarian-use vertebral body replacement implants; the potential availability of SiN/PEEK materials to additional manufacturers; the projected clinical, operational, or economic advantages of SiN/PEEK compared with standard PEEK; and the Company’s expectations concerning quality-system development, production scale-up, broader market opportunities, and future indications. Forward-looking statements are based on current assumptions and are often identified by words such as “may,” “will,” “could,” “should,” “expect,” “anticipate,” “intend,” “plan,” “believe,” “estimate,” “project,” “target,” “aim,” and similar expressions. These statements involve risks and uncertainties that could cause actual results to differ materially from those projected, including risks related to manufacturing readiness, quality-system development, supply-chain reliability, EVONIK’s third-party performance, regulatory requirements and the timing or outcome of FDA submissions, clinical adoption of patient-specific implants, surgeon training and utilization, competitive technologies, intellectual-property protection, market acceptance, pricing and reimbursement dynamics, and macroeconomic or industry-specific conditions. Statements regarding potential antipathogenic or osteogenic attributes of silicon nitride refer to general material-level research and do not imply regulatory clearance or clinical benefit for any specific device or indication. Additional risks and uncertainties are described in SINTX’s filings with the Securities and Exchange Commission, including its most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, available at www.sec.gov. Forward-looking statements speak only as of the date of this release, and SINTX undertakes no obligation to update them, except as required by law.

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