

Press release

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Nexam Chemical contributes to breakthrough in novel High-Temperature composites

Nexam Chemical, in collaboration with leading partners, is advancing the future of high-performance composites through the TAPE-X (Advanced Thermoformable Cross-linking Polymer Unidirectional Tapes - TAPE-Extreme) project, funded by Innovate UK. The project is dedicated to developing next-generation composite materials capable of replacing metals such as titanium in aerospace applications, enabling lighter, more fuel-efficient aircraft.

At the core of the project is a newly developed solid unidirectional composite tape (UD tape) that aims to bring together the storage stability and easy processing of thermoplastic tapes with the thermomechanical properties of thermoset materials. Nexam Chemical contributed its unique experience in the formulation of high temperature materials in designing and synthesizing the matrix material which serves as basis for the concept. This innovation paves the way for cost-effective production of complex geometries, e.g. ducts and piping in aircraft engines, with greater precision and minimal waste.

“TAPE-X is a major step forward in composite material development. By combining ease of processing with superior thermal and mechanical properties, we are unlocking new possibilities for aerospace, defence and other industries where extreme performance is required,” says Christer Svanberg, CTO at Nexam Chemical.

Key Advancements of TAPE-X Technology:

- **Enhanced Processing Window and Storage Stability:** Contrary to traditional thermoset materials, the stability and processing window of the new resin is very broad, avoiding the need of low temperature storage.
- **Temperature Resistance** – Designed for the high thermal demands of aerospace applications, the material is designed to withstand extreme conditions, offering a lightweight alternative to titanium and other alloys.
- **Enhanced Design Flexibility** – The combination of thermoplastic-like processing and thermoset-level performance enables the creation of complex structures that otherwise are difficult or costly to manufacture.
- **Broad Industrial Potential** – While initially focused on civil aerospace applications, the technology holds promise for other aerospace and industrial applications where extreme heat resistance and structural integrity are crucial.

Note: This press release has been translated from Swedish. The Swedish text shall govern for all purposes and prevail in case of any discrepancy with the English version.

For more information, please contact:

Ronnie Törnqvist, CEO, +46-706 25 41 85, ronnie.tornqvist@nexamchemical.com

About Nexam Chemical

*Nexam Chemical develops technology and products that make it possible to significantly improve the production process and properties of most types of plastics in a cost-effective manner and with retained production technology. The improved properties include strength, toughness, temperature and chemical resistance as well as service life. The improvements in properties that can be achieved by using Nexam Chemical's technology make it possible to replace metals and other heavier or more expensive materials with plastics in a number of applications. In applications where plastic is already used, Nexam Chemicals products can improve the manufacturing process, reducing material use and enable more environmental friendly alternatives. Example of commercial applications: pipe manufacturing, foam production and high-performance plastics. More information about the business will be found on www.nexamchemical.com. The company's Certified Adviser is **Bergs Securities AB**. **Bergs Securities AB** can be reached at info@bergssecurities.se or by phone +46-8 408 933 50.*