

New Victrex and Tri-Mack joint venture will accelerate polyketone composite components in Aerospace

Combining proven thermoplastic composite engineering and manufacturing expertise with innovative polyketone material technologies to create an unparalleled total solution provider for the industry

Thornton Cleveleys (UK), February 8th, 2017 – Victrex and [Tri-Mack](#) Plastics Manufacturing Corporation have established a joint venture, TxV Aero Composites, to accelerate the commercial adoption of polyketone (PAEK*) composite applications within the [aerospace](#) industry, through the manufacture of parts utilizing new and innovative processes. The multi-million dollar investment includes the establishment of a new US-based manufacturing facility.

The new company will be a total solutions provider for polyketone composites, from concept development through commercialization.

“This is a hugely exciting opportunity to accelerate innovative and differentiated solutions for our customers in the Aerospace industry,” explained David Hummel, chief executive of Victrex. “Victrex has an unrivalled history of making markets where polyketones have a strong advantage and this investment will enable growth opportunities for both our customers and for Victrex. Our Aerospace Loaded Brackets program is a great example of how we can offer new forms and components, alongside supplying materials, and build a new supply chain to address the unmet needs of the Aerospace industry.”



TxV Aero Composites, the new Victrex and Tri-Mack joint venture © Victrex

By combining world-class expertise in materials, engineering, development and manufacturing, TxV Aero Composites will be able to address customer challenges with dedicated speed and focus. The intent is to offer a range of PAEK composites, from custom laminates to pre-formed composite inserts for hybrid molding processes, as well as finished composite parts and complete over-molded hybrid composite components and assemblies. These innovative products can deliver weight savings of up to 60% over conventional metallic solutions, and offer continuous manufacturing processes and cycle times measured in minutes versus hours for thermoset alternatives. One example is [VICTREX AE™ 250 Composites](#), a new lower temperature processing PAEK-based composite product family that enables a unique hybrid molding process. This innovation combines the strength of continuously-reinforced thermoplastic composites with the design flexibility and proven performance of VICTREX™ PEEK

injection molding polymers.

Tri-Mack Plastics is a proven and long-standing partner of Victrex and has an excellent reputation for developing and manufacturing complex parts and assemblies for the Aerospace industry. TxV Aero Composites will establish a purpose-built polyketone composite center of excellence in the USA, due to be completed in 2017.

Higher processing efficiencies to meet future demands of the industry

Commenting on the joint venture, Will Kain, President of Tri-Mack stated, “With an estimated 35,000 new aircraft to be launched in the next 20 years, the aerospace industry is embracing thermoplastic composites as a cost-effective solution to support this growth. The efficient processing and performance advantages of PAEK thermoplastic composites combined with state-of-the-art automated manufacturing will position TxV Aero Composites to meet the industry’s cost and weight challenges.”

Commercial aircraft use thousands of brackets and system attachments from the cockpit to the tail of the plane. The total amount of these components on an aircraft can add a significant amount of cost and weight especially if they are made from machined metal or thermoset layups. The VICTREX PAEK-based components can be manufactured more efficiently than conventional thermoset alternatives, and can deliver significant weight savings compared to stainless steel and titanium while offering equivalent or better mechanical properties such as strength, stiffness, and fatigue.

Victrex and Tri-Mack at JEC

At the JEC World International Composites event – March 14-16, in Paris a TxV Aero Composites sample will be on display at the Victrex booth, Hall 5A stand G12.

* PAEK, Polyaryletherketone, a family of high-performance thermoplastics, such as VICTREX™ PEEK

About Tri-Mack

Tri-Mack Plastics Manufacturing Corporation is an innovative engineering and manufacturing company specializing in high temperature thermoplastics and thermoplastic composites. For over 40 years, customers have relied on Tri-Mack to identify the best material, part design, and manufacturing process for their critical applications. Collaborative engineering, cutting-edge technology and a commitment to quality enable Tri-Mack to support projects from initial concept to commercial production. Tri-Mack’s broad manufacturing capabilities include automated composite processing, injection molding, tool making, multi-axis machining, bonding and assembly. ISO 9001:2008 and AS9100 certified, Tri-Mack serves the aerospace, industrial equipment, chemical processing and medical industries. More information can be found at www.trimack.com. Tri-Mack will also be exhibiting at JEC Composite World Paris, 14-16 March within the State of Rhode Island booth in the US Pavilion, Hall 6 stand Q45g.

About Victrex

Based in the UK, Victrex is an innovative, leading global provider of high-performance polymer solutions for the aerospace, automotive, electronics, energy and medical industries. Every day, millions of people use products and applications containing our polymers – from smart phones, aircraft and cars all the way to medical devices via oil and gas installations. With over 35 years' experience, we provide cutting-edge technological solutions that shape future performance for our customers and markets, and drive value for our shareholders. Further information is available online at www.victrex.com. VICTREX™, APTIV™, VICOTE™, VICTREX PIPES™, VICTREX HT™, VICTREX ST™, VICTREX WG™, PEEK-ESD™ and the Triangle (Device), are trademarks of Victrex plc or its group companies.

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