



Blueshift chosen as official thermal protection system supplier for Lilium's production eVTOL aircraft

[Lilium](#), developer of the first all-electric vertical take-off and landing (eVTOL) jet, has selected [Blueshift](#) to be the official supplier of thermal protection systems (TPS) for its initial series production aircraft.

As part of the agreement, Blueshift will supply its revolutionary AeroZero® TPS, which will fit within Lilium's battery design to help prevent burn through and mitigate the risk of thermal runaway propagation.

Tim Burbey, President at Blueshift, said: "We're thrilled to announce our newfound partnership with Lilium – a leader in the eVTOL aircraft industry. We are supplying our AeroZero® TPS, which provides key protection to Lilium's core battery components and will help ensure seamless operation of their aircraft.

"We're looking forward to working with the team at Lilium in protecting their battery packs and other critical areas within their aircraft. Our partnership will prove the incomparable benefits of our technology in promoting a more sustainable method of transportation."

Blueshift's technology provides protection of carbon fibre composites and thin metallic housing and parts, such as aluminium, titanium and steel. All of Blueshift's products are flame retardant, less than 1.5mm thick and have a very low thermal conductivity and thermal diffusivity.

Key applications include direct flame and thermal protection for batteries and their enclosures, composite housings, structural barriers, as well as helping mitigate fire propagation from thermal runaway in power-dense batteries.

Many of Blueshift's products are currently being evaluated and integrated into different areas within battery packs, battery housing, external skin/wing protection, and other areas of eVTOLs and electric-powered aircrafts.

The Lilium Pioneer Edition Jet is the first planned model of the Lilium Jet and will comfortably seat four passengers on estimated non-stop flights of up to 175 km at 250 km/h at launch. The first manned flight of the Lilium Jet is scheduled for late 2024, with entry into service expected in 2026.



Martin Schuebel, Liliium's Senior Vice President Procurement, added: "Blueshift's thermal protection system is light, thin and easy to incorporate into our strict design requirements, while producing exceptional thermal results."

About Blueshift

Blueshift is a technology leader in thermal protection systems (TPS) for the Aerospace Industry. The company's proprietary portfolio includes AeroZero® TPS, which protects critical lightweight structures and components in air and space vehicles from transient flame and thermal events with temperatures ranging from minus 200 °C to over 2,000 °C. Blueshift's Flame and Thermal Barrier (FTB) products aim to enhance the performance of lithium-ion battery cells, allowing aircraft manufacturers to extend flying range and reduce the cost of electric vehicles. Blueshift's FTB products offer aircraft original equipment manufacturers (OEMs) significant advantages, including reduced weight, space, and integration time. This is attributed to the FTB's thin profile, low weight, high thermal performance, and ease of integration. These benefits are particularly valuable for electric vertical takeoff and landing (eVTOL) and all-electric aircraft OEMs.

Headquartered in Spencer, Massachusetts, and vertically integrated, Blueshift manufactures its multi-layer thermal protection systems in a continuous roll-to-roll format. These systems are then converted into complex shapes and parts at its on-campus fabrication facilities. For more information, visit www.blueshiftmaterials.com.