



EPSILON'S BREAKTHROUGH IN GEN III LFP CATHODE MATERIAL TAKES ON CHINA'S LFP DOMINANCE

PFE-Compliant Gen III LFP Cathode Material Targets US Market; India Manufacturing Scale at 30,000 TPA by 2030

April 27, 2026, Mumbai, India / Moosburg, Germany - Epsilon CAM has announced a landmark breakthrough in LFP cathode technology, one of the rare non-Chinese breakthroughs in high-energy-density battery chemistry at commercial scale. The company's Gen III LFP Cathode Material achieves discharge capacity of ≥ 159 mAh/g and electrode density of ≥ 2.51 g/cc, and more energy per cell for electric vehicle manufacturers worldwide. The breakthrough emerges from over 145 active patents developed through continuous materials science research at Epsilon's Cathode Technology Centre in Moosburg, Germany a facility that has quietly positioned itself as one of the world's most consequential LFP innovation labs outside of China.

"This isn't just incremental," said Vikram Handa, Managing Director, Epsilon Group "With our Gen III LFP Cathode Material, we've engineered a formulation that gives EV makers genuine performance differentiation more energy per cell, denser electrode architecture, and the compliance pathway that matters most for the North American market: full PFE approval."

The Commercial Implication

The Gen III LFP Cathode Material is engineered for commercial scale deployment. Epsilon is advancing commercial manufacturing at a planned capacity of 30,000 TPA in India.

Critically, the Gen III LFP Cathode Material meets PFE (Prohibited Foreign Entity) compliance standards, positioning it for unrestricted entry into US battery manufacturing and automotive supply chains. In a market increasingly shaped by diversified mandates, this regulatory advantage is not a footnote, it's a competitive moat. For battery cell manufacturers, Gen III LFP Cathode Material optimizes the energy density and discharge capacity, while delivering 2X cycle life for extended battery pack longevity and proven high-temperature performance. For EV OEMs, the performance gains translate directly to lower total cost of ownership, reduced warranty exposure, and batteries built for real-world deployment.

Why This Matters Now

Until now, OEMs seeking high-energy-density LFP at scale have had limited non-Chinese sourcing options — creating supply chain concentration risk and growing geopolitical exposure. Epsilon's Gen-III LFP Cathode Material, backed by Moosburg R&D and India-based manufacturing, offers OEMs three simultaneous advantages: performance parity with Chinese alternatives, supply chain diversification, and regulatory compliance with North American frameworks. India is no longer just a cost-competitive manufacturing destination but a credible alternative to Chinese dominance in the global battery materials supply chain. With the Gen III LFP Cathode Material, Epsilon is staking its claim as a materials innovation destination. Epsilon's Cathode Technology Centre in Moosburg will continue to serve as the global R&D and product development hub, housing the materials science team behind the 145+ patent portfolio and driving successive development cycles of the higher generation of LFP Cathode Material.



About Epsilon Cathode Active Materials (ECAM)

Established in 2023, Epsilon Cathode Active Materials specializes in the development and commercial production of Lithium Iron Phosphate (LFP) Cathode Active Materials. The company's ISO 9001-certified Cathode Technology Centre in Moosburg, Germany has a portfolio of 145+ patents in next-generation cathode technologies, a 250-ton commercial demonstration plant, and advanced cell testing capabilities, positioning ECAM as one of the few non-Chinese Organisations conducting serious cathode materials R&D at commercial scale.

With its R&D foundation in Germany, ECAM is ready for commercial scale Cathode Active Material facility, with 30,000 tons per annum capacity in India. This expansion reflects the company's broader commitment to building a resilient, geographically diversified, and sustainable battery materials ecosystem for the global EV and energy storage industries.

For more information, visit www.epsilonam.com/cathode.html

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