

Posco Future M partners with Sila to develop next-gen battery materials

16-Mar-2026 13:49 GMT

IHS Markit
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Supply Chain and Technology, Automotive

The collaboration aims to advance silicon anode technology for improved battery lifespan, driving range and charging speed

Posco Future M has announced a partnership with US battery materials firm Sila through a memorandum of understanding to develop next-generation battery materials that aim to extend battery lifespan. The agreement was signed in Seoul, South Korea, with key representatives from both companies, including Hong Young-jun, head of Posco Future M's R&D center, and Gleb Yushin, founder and chief technology officer of Sila, in attendance.



Source: Getty Images

The collaboration will leverage Posco Future M's expertise in cathode, anode and carbon materials combined with Sila's silicon anode technology to advance battery materials development.

Silicon anodes, which have the potential to store up to 10 times more energy than traditional graphite-based anodes, could lead to longer driving ranges and faster charging times for electric vehicles. However, they pose a challenge due to their significant expansion during charging and discharging, which can cause structural damage and reduce battery life.

The partnership aims to tackle this issue by utilizing carbon nanomaterial technologies to manage expansion and enhance durability. Currently, silicon anodes are used sparingly, making up only 4% to 5% when blended with graphite anodes.

The industry is actively working to improve the stability, which could accelerate the commercialization of batteries with higher silicon content. The collaboration also seeks to enhance the cost competitiveness of silicon anodes using Posco Future M's carbon material technologies. Beyond technological development, there is a plan to expand collaboration throughout the battery supply chain.

In conjunction with this, Posco Future M highlighted its research progress with partners, including Sila and all-solid-state battery startup Factorial Energy, during the InterBattery 2026 exhibition in Seoul, showcasing its Open Innovation zone.

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