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ARMOR BATTERY FILMS INTRODUCES A GROUNDBREAKING EN' SAFE® CURRENT COLLECTOR TO IMPROVE EV BATTERY PERFORMANCE

Armor Battery Films enriches its product portfolio with two En' Safe® current collectors to its product portfolio, set to enhance the EV battery landscape. Designed to meet stringent high-temperature storage stability requirements (up to 60°C), this new En' Safe® current collectors significantly enhance the performance and reliability of LFP batteries in electric vehicles.

LFP/LMFP: The Dominant Battery Technology Driving the EV Market

In 2024, Lithium Iron Phosphate (LFP) technology established itself as the dominant solution for electric vehicles, capturing an impressive 56% of the cathode market share*. Renowned for its cost-effectiveness, safety, and environmental advantages, LFP eliminates the need for scarce and costly materials such as nickel and cobalt, making it a favored option for numerous manufacturers. To maximize LFP's performance, **it is crucial to improve conductivity and adhesion**, which can otherwise limit cell capacity.

Innovative Solutions to Enhance Battery Performance

Armor Battery Films has developed **En' Safe® NG4 and En' Safe® NG5** current collector to effectively address these challenges while maintaining competitive pricing. This proven solution offers **excellent thermal stability at 60°C**, making it ideal for **EV applications**. It enhances **adhesion by at least 250%** and boosts **conductivity by more than 50%**, thereby significantly improving the overall performance and efficiency of energy storage systems. This primer complements a range of primers already developed for LFP electrodes, ensuring optimal performance under various conditions.

Depending on the specific needs of the battery application, different primers are available, such as:

- For **thick electrodes**, maintaining high energy density and power.
- For **electrodes with low molecular weight PVdF**, ensuring good adhesion.
- For cells with **very high charge/discharge rates** (exceeding 5C), minimizing impedance.

Tailored Solutions for Every Client

Armor Battery Films is committed to developing a range of products designed to meet the specific requirements of each battery manufacturer. Our state-of-the-art R&D and technical collaboration approach allows us to create primers that adapt to the specific needs of our customers, rather than offering a one-size-fits-all solution.

Innovative Activity Highlighted by Patented Technology

To further advance LFP electrochemistry, we have patented a groundbreaking technology that, with our En' Safe® primer, can drastically reduce or even eliminate carbon black in the electrode, significantly boosting the cell's energy density.

**Source: Volta Report 2024*