

FACT SHEET

ElroShield™ EV +



Prevention of thermal propagation
within traction battery systems

The targeted application for the product called ElroShield EV + is a non-metallic thermal propagation shielding within traction battery systems.

The main function is to prevent thermal propagation in between battery cells, battery modules and the overall battery pack.

The maximum application temperature is up to 1,100°C. Therefore, with its brilliant thermal insulation performance, the solution can prevent thermal propagation. The overall good compressibility allows the usage between battery cells, also to compensate cell swelling during fast charging.

With its excellent formability, it can perfectly fit with the complex 3D geometry of metal layers even with reinforcement features. Multiple integration possibilities with different kinds of foil/ tapes or coatings, further contributions can be provided in terms of EMC prevention or even higher dielectric strength and fireproofing function.

A tailored design regarding geometry and thickness can also be provided by a joint development with the customer according to preload and gap definition.

Applications

- + Between battery cells to prevent thermal propagation
- + Between battery cells to increase dielectric strength
- + Between battery cells to absorb the force while battery is fast charging
- + Integrated in the battery metal cover for thermal insulation and/or dielectric coatings
- + Side cover / end plate of battery module

Benefits

- + Cost leadership compared to current solutions
- + Thermal conductivity consistent and not sensitive to pressure
- + Flexible combination to fit various application demands
- + Integration of thermal insulation and/or dielectric coating
- + Excellent formability and therefore perfect match with metal layers possible
- + Various thicknesses can be built up in the same product
- + Smooth clean surfaces



ELRINGKLINGER – YOUR PARTNER FOR SHIELDING SYSTEMS

Product Development (Design, Engineering and Simulation) – Validation & Testing – Tool Shop – Prototype Shop – Series Production

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