

ALKEGEN

Breathe easier, live greener,
and go further than **ever before.**

Technologies to Improve the Performance and Safety of Li-Ion Batteries



Solutions for Sustainability, Safety, and Performance for Energy Storage Devices and Electric Vehicles

More than a provider, a partner

Alkegen, formerly Unifrax and Lydall Materials, brings together two of the world's leading specialty materials companies to create a one-of-a-kind specialty materials platform dedicated to human health and sustainability. Alkegen is a world leader in filtration, specialty insulation, and battery materials and technologies designed to enhance safety and improve battery performance.

We're more than just a supplier of specialty materials to buy from, we're a partner offering an integrated platform of solutions featuring unmatched service and product innovation of the highest, most uncompromising quality.



Innovative In-Cell and In-Pack Solutions for Batteries

Battery Technologies

Alkegen battery innovation includes developing advanced materials for thermal barriers and electrical protection, battery separator technology, and revolutionary silicon fiber anode materials that enable greater energy density, faster charges, and longer battery life in electric vehicles, consumer electronics, power tools, and energy storage systems.

- SiFAB® – Advanced silicon fiber anode battery technology
- Inovion™ – Thermally stable fibrous separator for lithium-ion batteries
- AlkeGel – Thin, low thermal conductivity aerogel with improved handleability and minimal dust
- FyreWrap® LiB Papers, Felts, Films, and Coatings – Thin, lightweight engineered solutions for high temperature thermal and electrical protection
- FyreWrap® LiB Cell Spacers – Thermal and electrical barriers with tunable compression characteristics
- FyreWrap® LiB Nonwovens – Flexible insulation system enabling cell venting and heat transfer management



We offer a wide range of innovative and environmentally friendly products while ensuring a level of performance and efficiency that meets the expectations of our clients.



Improving EV Battery Performance and Safety

Alkegen helps OEM's and battery manufacturers improve electric vehicle and stationary battery performance and safety by offering a range of high-temperature, lightweight products to reduce thermal runaway propagation and provide mechanical, electrical, and thermal protections in the battery pack.

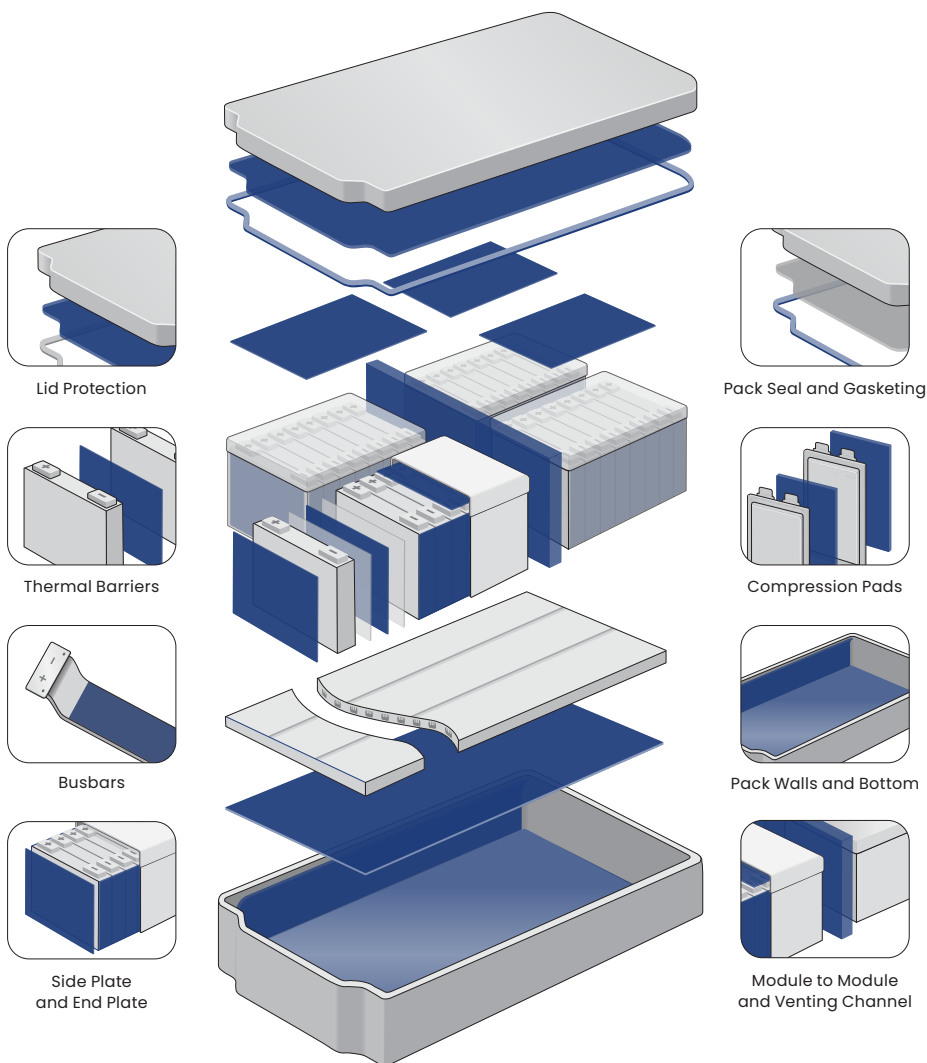
In-Pack Solutions

Alkegen Advantages

- Vertically integrated across multiple inorganic and synthetic fiber and process technology platforms
- Part production and custom solutions utilizing nonwovens, coatings, films, 3D shapes, rigid and flexible" to "Custom solutions and final part production utilizing nonwovens, coatings, films, aerogels, 3D shapes, rigid and flexible"
- Composite materials combining pressure-sensitive adhesives, mica, foams and other functional layers

Key Performance Attributes

- High temperature resistance, up to 1600°C
- Low thermal conductivity
- Thin solutions: Starting at 0.15mm and customizable up to 50.0mm
- Lightweight: Densities starting at 127 kg/m³
- Dielectric strength: Up to 20kV/mm



Industries we Serve



FILTRATION
& CATALYSIS



INSULATION



TRANSPORTATION
& OFF-ROAD
EQUIPMENT



BATTERY



CONSTRUCTION &
FIRE PROTECTION



Worldwide Reach and Access

Alkegen has over 60
manufacturing facilities
and 9,000-plus
employees worldwide.

ALKEGEN

Battery Group
In-Cell Solutions / In-Pack Solutions

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