



**E-MOBILITY
SOLUTIONS**



MATERIALS
CONVERTING
SERVICE

 **ADDEV**MATERIALS

E-mobility is gaining increasing importance. All major players in the automotive industry are seeking for new innovative solutions to shape the transportation of the future and answer the ecological challenges we are facing today.

ADDEV Materials, as a converter, is here to provide you the best customized solutions for batteries, electrical motors and fuel cells by converting foams, tapes and technical films. As experts in materials, we provide technical and tailor-made solutions to bring you the best performances, always.

BATTERY

MECHANICAL ASSEMBLY

Compression pads are used in mechanical assembly for intercell wedging and cushioning. They aim to protect the components and battery against the shocks by providing an antivibration effect and a mechanical wedging.

- ▶ Adhesives, tapes, foams, elastomer, sealants

ELECTRICAL INSULATION

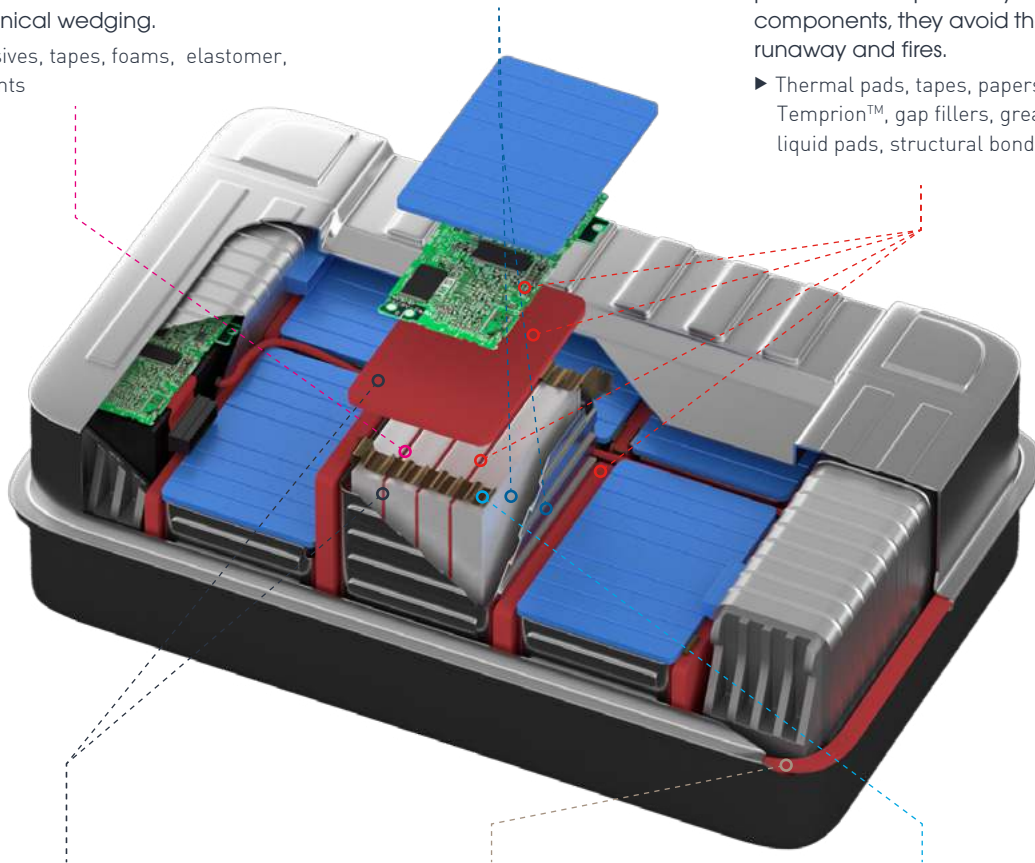
ADDEV provides you films with the highest isolation and dielectric properties, working even in harsh conditions.

- ▶ Papers & films, polyimide, laminates, tapes, resins, sealants

THERMAL MANAGEMENT

Thermal management is key to guarantee efficiency as well as durability, performance and safety of batteries. Thermal gap pads or tapes and other materials with excellent thermal conductivity promote heat spread. By cooling components, they avoid thermal runaway and fires.

- ▶ Thermal pads, tapes, papers & films, Temprion™, gap fillers, greases, liquid pads, structural bonding



FIRE BARRIER

Fire blocking and self-extinguishable materials (in compliance with the UL94V-0 standard) help minimizing the risk of fire if a thermal runaway occurs.

- ▶ Papers & films, mica, meta-aramide

SEALING

Sealing is essential to protect from air, dust, water, weather conditions and temperatures.

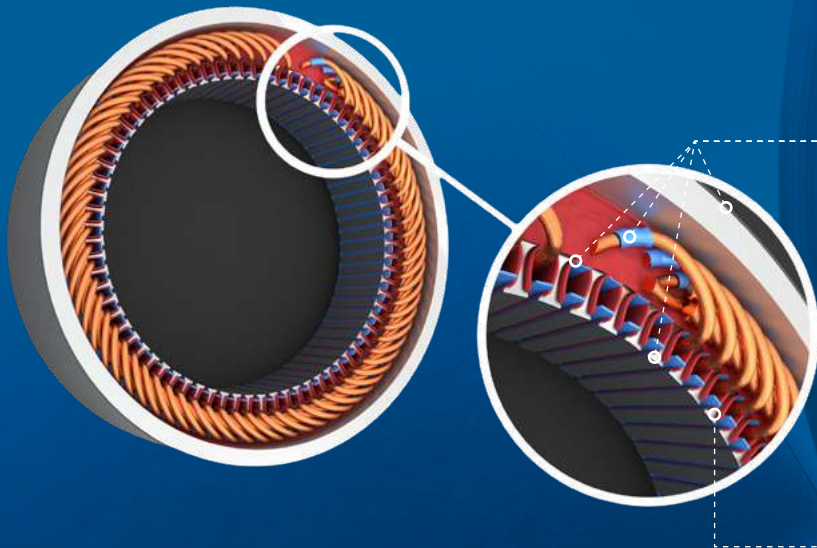
- ▶ Foams, tapes, sealants, adhesives

ELECTRICAL CONDUCTIVITY

At the battery cells level, using anodes and cathodes coating or adhesive transfers contribute to better conductivity, better thermal management and improved battery durability.

- ▶ Liquid adhesives, one - or two-components epoxy, copper or aluminum laminates, anisotropic or isotropic tapes

ELECTRIC MOTOR



ELECTRICAL INSULATION

Beyond applications on conventional motors, insulation materials on electric motors provides the best performances for operating in harsh conditions and in high power density environments.

- ▶ Papers & films, laminates, slot and wedges insulation, electrical tapes, resins

THERMAL MANAGEMENT

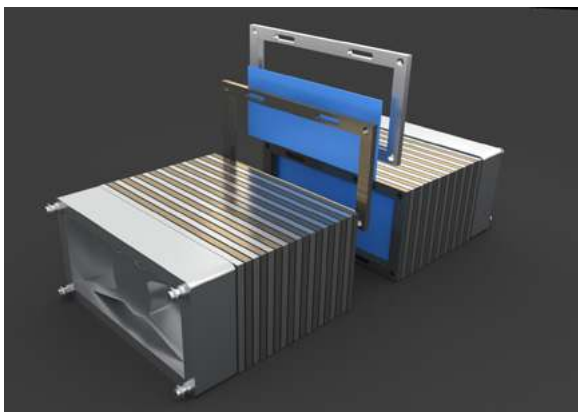
Thermal management allows a better efficiency and downsizing motor while improving longevity and power density. We provide you our special Kapton® MT+ for optimal thermal management.

- ▶ Papers & films, laminates, Kapton® MT+, Temprion™, resins

ADDEV MATERIALS: INNOVATION PROVIDER

NEW HEATING FILM: ADDEV Materials in partnership with DuPont™ is developing a high value-added solution on the electric, hydrogen vehicles and thermal management markets to extend battery life and bring the battery up to temperature. A greener, lighter, more resistant proposal.

Our team will support your projects by providing you tailor-made prototypes.



FUEL CELLS AND BATTERIES APPLICATIONS

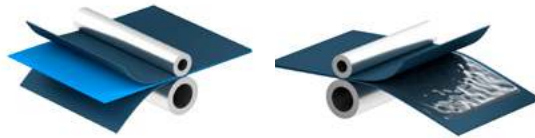
- ▶ Fast heating for batteries cells
- ▶ Better safety : reduce risks of failures
- ▶ Bring temperature homogeneity in fuel cells & batteries

OTHER APPLICATIONS : Heating solutions for vehicles interiors



CONVERTING & SERVICE

As experts, our industrial capacities help you converting the materials you need, in their most complete composition and shape. We offer you tailor-made support all-along your processes: This is ADDEV Added value.



LAMINATING



ROLL FORM CUTTING



DIE CUTTING

CLEAN ROOM CUSTOMIZED CUTTING

- ▶ Clean environment of 350m²
- ▶ Zero pollution risk
- ▶ Optimal quality and traceability

Wherever innovative materials are key, we deliver converting and services.

Through our in-house concept of "Innov'ADDEV Lab", we bring you more than materials technical expertise: we invite all stakeholders to harness ideas and desires, so as to reveal shared ambitions and anticipate future needs.

Our collaborative innovation approach will enable you to be more effective, more competitive to conquer new markets.