

FACT SHEET

# Battery module housing

The ElringKlinger module box was developed for multifunctional use in the field of battery housings and boxes. The design and materials of ElringKlinger allow to integrate different functions, targeting the mechanical, thermal, acoustical and electro-magnetic functions of battery housings and modules – tailored to costumers requirements and needs. In a nutshell – designed with added values addressing xEV-needs.



Multifunctional use  
in the field of battery housings and boxes

## Standard carrier layer materials

- + Aluminum (0.2 mm – 3 mm)
- + Stainless steel (0.2 mm – 3 mm)
- + Fire Aluminized Low Carbon Steel DX53-56 (0.2 mm – 3 mm)
- + Cold-rolled steel DC04-06 (0.6 mm – 2 mm)

## Insulation materials

- + High temperature binder-free mineral fiber (0.85 mm)
- + Inorganic, mechanical felted silicate fiber (3 mm – 20 mm)
- + Noncombustible textile compound material (0.6 mm)
- + Functional tapes (flame retardant, high dielectric strength)

## Benefits

- + Structural strength and stiffness within the carrier layer
- + Weight saving potential up to 50% due to the ElroShield EV design
- + Expensive thermal protection coating is not required
- + Thermal conditioning (cooling) through bottom plate
- + Thermal conditioning (warming) through integrated heaters in the walls
- + Superior thermal properties with regards to thermal events
  - + passing real cell testing acc. to UL2596 @ 500 kPa
  - + passing Pyro-testing acc. e.g. TDO V03.986.764.A
- + Electro-magnetic capabilities can be customized with the second metal layer
- + Functional integration within the structural part
- + Production concept (low cost) available to execute high volume solutions (> 100,000) and given sustainability due to reasonable recycling

## Applications

Battery boxes and modules.

## Maximum temperature

Maximum 1,100°C (depending on material).



### ELRINGKLINGER – YOUR PARTNER FOR FORMED SHEET METAL PARTS

Full service supplier on a global scale: Project management – Design – Simulation – Part development – Test & Validation – Ramp Up Management – Production

### YOUR CONTACT

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