

AZL Joint Partner Project

Thermal Propagation in BEV Battery Casings

Techniques for prediction of cell- and casing behaviour after the initial trigger event for thermal propagation



Do you know ...

- ... what happens at a thermal runaway event for different battery cell chemistries? Will a flame result? What temperatures will occur?
- ... how will the hot released gasses spread through the battery pack and put thermal and mechanical loads on components?
- ... how to predict whether a battery pack will safely survive a thermal runaway event according to regulations?
- ... how effective different shielding materials avoid thermal propagation?

What you will get?

The project provides know-how and predictive methods for the events happening after a first thermal runaway of a battery cell.

- **WP1:** Analysis of state of the art and future battery cell types.
- **WP2:** Analysis of thermal runaway cell to cell propagation behaviour for different cell types.
- **WP3:** Analysis of hot gas development and flow through the battery pack, pressure build-up and temperature loading on the battery casing structure.
- **WP4:** Example thermo-mechanical CAE analysis for different tray and lid layouts, using different materials.

Open to join

Kick-off: September 11th, 2024

Duration: approx. 10 month



Head of Industrial Services

Philipp Fröhlig

+49 241 475 735 - 14

+49 176 80488799

philipp.froehlig@

azl-aachen-gmbh.de



Scan it
for more info: