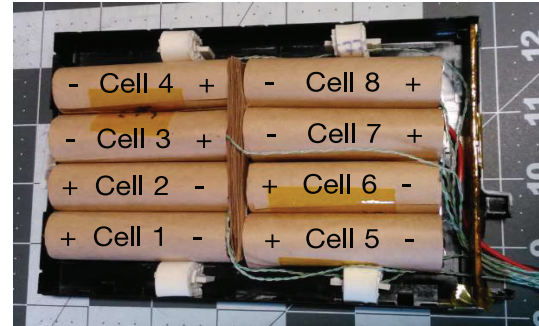


TR Sleeve / Heat Barrier Wrap



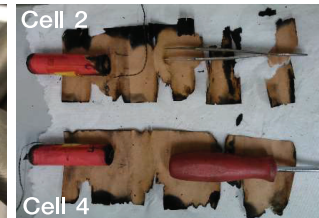
Third Party Testing Battery Pack with the ThermoShield TR Sleeve

AP-Test 06.December2021,
PACT ThermoShield paper



Post-Mortem Inspection Test 06December2021

- Ignition cell 3 had a remarkable side wall rupture, maybe due to a reduced thermal conductivity of the PACT paper, i.e. a more heterogenous heat-up of the ignition cell ? If so, then in a thermal runaway scenario caused by a cell-internal failure this is maybe not a too serious problem.
- Cell 4 still had the majority of the PACT paper intact, cell 2 a little less.
- Cell 2 (3.476V stable at jelly roll) and Cell 4 (3.724V stable at jelly roll) probably had partial venting, at least the CID was activated

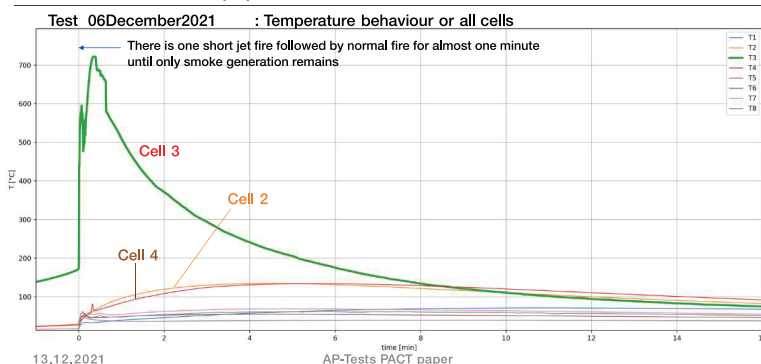


Cell	1	2	3	4	5	6	7	8
Voltage at cell can /V	4,14	1,85	-/-	0,0	4,15	4,15	4,14	4,14

13.12.2021

AP-Tests PACT paper

AP-Test 06.December2021,
PACT ThermoShield paper



**Not only mitigated the
thermo event, nothing
else in the package
was affected**

Fireproof solutions



Third party Proposed SAE G-27 Test

Thermal runaway and propagation remained suppressed within the ThermoShield wrap.

- Max temperature within the battery box (thermal runaway and propagation) = **750°C**
- Max temperature outside the battery box = **250°C**

No damage to the witness box

No damage to outside UN shipper

No escaped fumes or gasses

No change in oxygen level



Third Party Testing Pillow Pack

