

Thermal propagation

China
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Implementation of thermal Propagation test in China

- GB 38031-2020 was Implemented in January 2021. Thermal propagation has become a mandatory test for EVs and PHEVs.
- Heating and penetration are given as recommended thermal runaway triggering methods in GB 38031-2020, and it is allowed to use other methods to trigger thermal runaway.
- So far, heating, penetration and overcharging have been used as triggering methods, and all tests were performed successfully.
- Manufacturers usually choose 300W-600W heating power for test.

Application of liquid cooling system in thermal propagation test

- Whole vehicle level test, all functions of the whole vehicle and battery system remain in normal working state.
- Battery system level test, the liquid cooling system can work according to the conditions of vehicle application. The following shall be consistent with the vehicle application and control strategy.
 - ① Coolant composition,
 - ② Total coolant,
 - ③ Cooling power (controlled according to actual control strategy or through BMS / VCU communication),
 - ④ Flow or pressure (controlled according to the actual control strategy or through BMS / VCU communication).

Thanks for your attention!