

## Testing out products

1. Thermal performance testing, Thermal stability test
2. Safety testing
3. Efficiency testing
4. Environmental compatibility testing
5. Vibration testing
6. Electronics testing
7. Data Acquisition System
8. Control algorithms
9. Battery capacity test
10. Charging and discharging test
11. Temperature test
12. Dielectric fluid performance test

- This involves testing the ability of the battery thermal management system to regulate the temperature of the battery to within a certain range under various conditions.
- This involves testing the system's ability to prevent safety hazards such as overheating and battery fires.
- This involves testing the system's ability to operate efficiently and optimize battery life.
- This involves testing the system's ability to operate in various environmental conditions such as high humidity or extreme temperatures.
- This involves testing the system's noise and vibration levels to ensure that it does not interfere with the performance of other components in the vehicle.
- This involves testing the battery thermal management system's electronic control systems to ensure reliable operation and avoid failure modes.
- to acquire the temperature sensor data, process it, and save it to a database.
- to regulate the heating and cooling of the battery under different operating conditions.

## Application products

- Space shuttle material - Insulation pack
- Wearing gloves for heat-resistant areas

## Borosilicate glass

- Linear Thermal Expansion:  $\alpha = 30 - 60 \times 10^{-7} / ^\circ\text{C}$
- Thermal Conductivity:  $K = 1 \text{ Watt/m}^\circ\text{C}$
- Specific Heat:  $C = 800 \text{ J/kg}^\circ\text{C}$
- Melting point:  $1,650 ^\circ\text{C}$

Borosilicate glass is a combination of melting boric oxide, silica sand, soda ash, and alumina.

The composition of low-expansion borosilicate glass is approximately 80% silica, 13% boric oxide, 4% sodium oxide or potassium oxide and 2–3% aluminum oxide

**Borosil Vision Small Squat Glass:** This set of 6 glasses is priced at **₹399** and is made of borosilicate glass that can withstand temperatures up to 350°C.