

ProCell® EV Firewall TB1000 Thermal Insulation Board

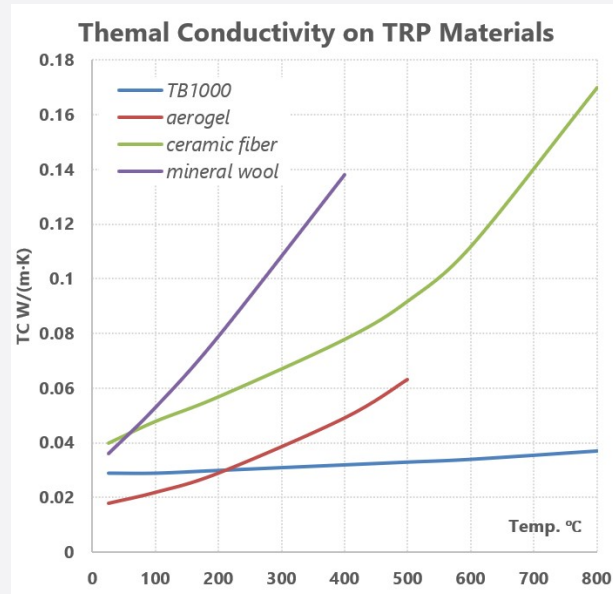
ProCell® EV Firewall TB1000 Thermal Insulation Board is a microporous, fumed silica-based thermal insulation material designed to help delay or prevent thermal propagation in lithium-ion battery systems.

The material maintains low thermal conductivity across a broad temperature range, supporting battery safety requirements in electric vehicle and energy storage applications.

As battery designs continue to evolve — including both higher-energy-density platforms and applications with increasingly stringent safety requirements — it is essential that thermal management materials provide greater protection while minimizing package thickness.

ProCell EV Firewall TB1000 material helps designers address these challenges through high-temperature insulation performance and flexible integration into battery pad assemblies.

ProCell® EV Firewall TB1000 Thermal Insulation Board maintains a consistently low thermal conductivity, even when exposed to extreme temperatures.



Key Benefits:

- Thin-profile solution for battery pack designs
- Low thermal conductivity across a wide temperature range
- Minimal conductivity increase as temperature rises
- Applicable at temperatures exceeding 1000°C



**Unencapsulated
ProCell EV Firewall TB1000
Material**

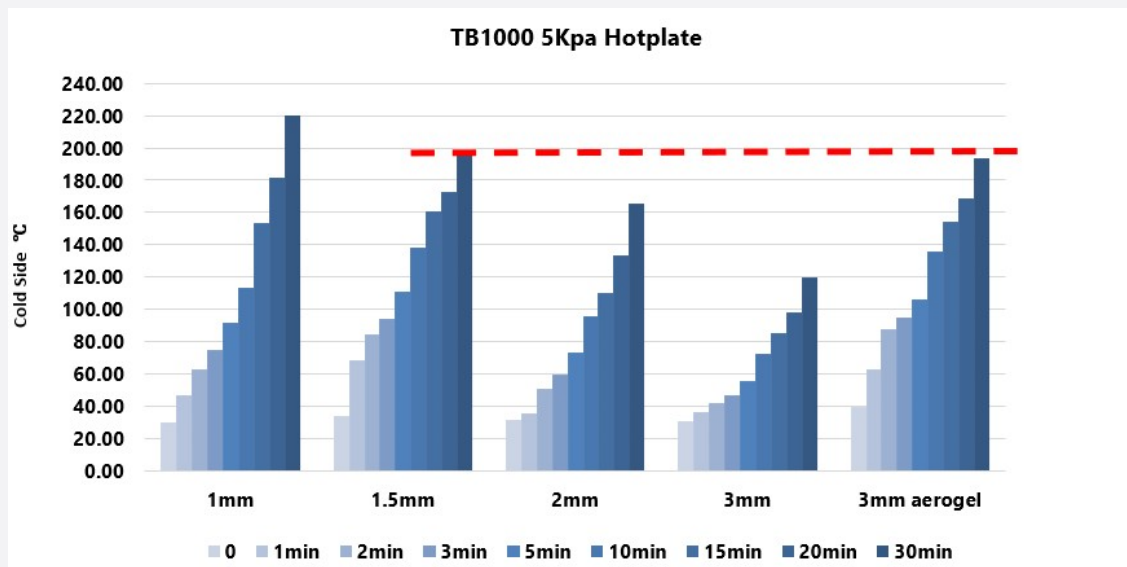


**Encapsulated
ProCell EV Firewall TB1000
Material
Laminated to Foam Pad**

Performance Validation and Application Design

800°C Hot Plate Testing

- 2 mm ProCell® EV Firewall TB1000 maintained the cold-side temperature below 200°C for 30 minutes
- 1.5 mm ProCell EV Firewall TB1000 demonstrated performance comparable to 3mm aerogel



Manufacturing Integration

ProCell EV Firewall TB1000 can be integrated into composite battery pad assemblies that combine thermal insulation and pressure-management materials to support battery safety, durability, and pack performance. Typical implementations include:

- Encapsulated ProCell EV Firewall TB1000 with protective films
- Encapsulated ProCell EV Firewall TB1000 with PU or silicone frames
- Encapsulated ProCell EV Firewall TB1000 with PU or silicone foam pads

