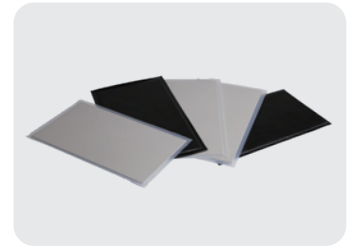


## Introduction

TT 1000 classic LB is an ultra-thin microporous insulation panel with customized outer coverings. It is an ideal choice to create excellent thermal insulation and fire protection properties for lithium-ion batteries. Compared to existing solutions on the market, our products are more competitive in terms of thermal stability, high-temperature thermal conductivity, mechanical properties, and smoke emission.

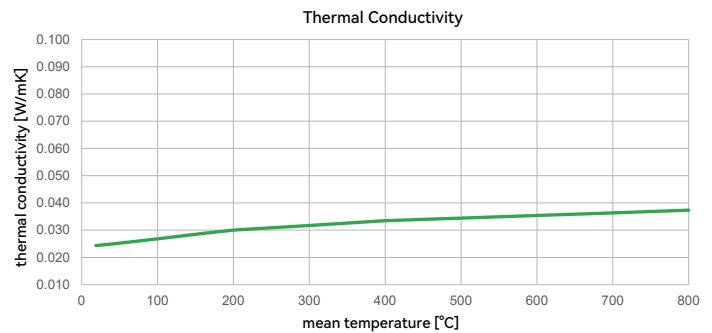


## Technical Data

### Thermal Conductivity

20 °C / 68 °F	0.024 W/m K
200 °C / 392 °F	0.030 W/m K
400 °C / 752 °F	0.033 W/m K
600 °C / 1112 °F	0.036 W/m K
800 °C / 1472 °F	0.038 W/m K

test standard: room temperature: GB/T 10295-2008, high temperature GB/T 10294-2008



### Other Technical Parameters

	Parameters	Test standard
peak temperature	1200 °C / 2192 °F	/
specific heat capacity (25°C)	≥ 0.8 J (g · °C)	ASTM E1269-2011
fire rating	V0	UL-94
Insulation resistance DC 2500V (PET wrapped)	> 10000 MΩ	GB/T 31838.4-2019
withstand voltage DC 3500V (naked board)	≤ 0.1 mA	GB/T 1408.1-2016
withstand voltage DC 5880V (PET wrapped)	≤ 0.1 mA	GB/T 1408.1-2016
compression performance <sup>1</sup> (naked board)	0.5 MPa: 13%±5%; 1.0 MPa: 20%±5% 1.5 MPa: 25%±5%; 2.0 MPa: 31%±5%	/
density <sup>2</sup> (naked board)	350-450 kg/m <sup>3</sup>	GB/T 18046-2017
hygroscopicity (PET wrapped)	≤ 2%	GB/T 1034-2008
halogen	qualified	GB/T 39560.302-2024
prohibited materials	qualified	TSCA/RoHS/Reach
double 85/ 1000h test (PET wrapped)	Insulation resistance DC 2500V	GB/T 31838.4-2019
	withstand voltage DC 3500V	GB/T 1408.1-2016
	thermal conductivity 25°C	GB/T 10295-2008
	hygroscopicity	GB/T 1034-2008

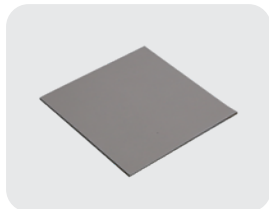
1. test conditions: size 60\*60\*3 mm, prestressing force 0.008 MPa, speed 2 mm/min.

2. density varies slightly for different thicknesses.

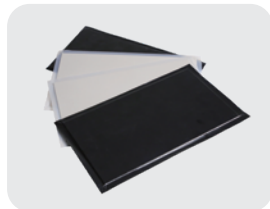
## Available Sizes

microporous core colour	grey
dimensions	customized
dimensional tolerances	±1 mm ( ≤ 400 mm) ±2 mm ( > 400 mm)
thickness	0.8-5 mm
thickness tolerances	±0.15 mm (0.8 mm ≤ thickness ≤ 1.5 mm) ±0.2 mm (1.5 mm < thickness ≤ 5.0 mm)

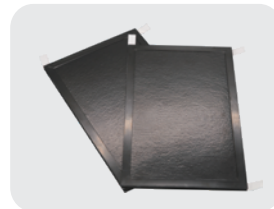
## Surface Covering Options



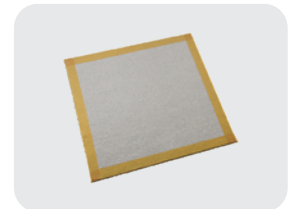
Naked



PET wrapped



Laminated with silicone frame or foam



Mica lamination

The boards can be naked, wrapped or laminated with different coverings depending on your application. More coverings are available on request.

## Other Customized Services

### Cutting

The naked board can be cut to your required dimensions.

### Net Shape Pressing

We provide customized molds for larger quantities to improve cut-off losses.

## Technical Limitation

Water and other liquids will irreversibly destroy the microporous structure and as a result the insulation performance of the material.

## Declaration of Non-hazardousness

According to the regulation of the European union 2006/1907/EC this material is classified as non-hazardous. The used fibers are not respirable as defined by WHO.



unicorn-insulations.com  
info@unicorn-insulations.com

ISO9001:2015  
CERTIFIED



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