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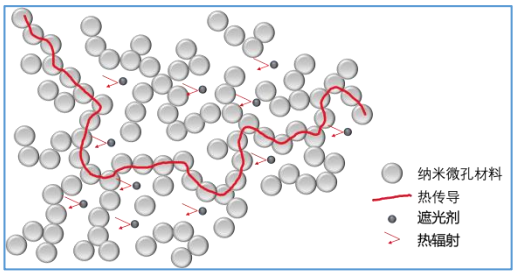
Nano Micro Porous Insulation Panel (950 Serie) Technical Data Sheet

Product Profile

By compressing nano-porous materials into panels, a thermal insulation material suitable for high-temperature insulation is formed. It can withstand a high temperature of 1000℃ and possesses excellent flame retardancy. Meanwhile, the thermal conductivity has a low increase rate with rising temperature, and the shrinkage rate is low. It is applicable to various high-temperature insulation needs in nuclear power, iron and steel, metallurgy, petrochemicals, cement, ceramics, elevator landing doors, new energy batteries and other fields.

Thermal Insulation Principle



The nano micro porous insulation panel reduces heat transfer in three aspects:

Due to the special structure of the raw materials of the product, heat conduction of the panel can only occur through the surface contact of tiny particles, which significantly increases the conduction path and reduces heat conduction. Meanwhile, the movement of air molecules in the particle gaps is significantly reduced, providing almost no heat transfer by convection. The addition of opacifiers in the material can also block thermal radiation.

Product Features

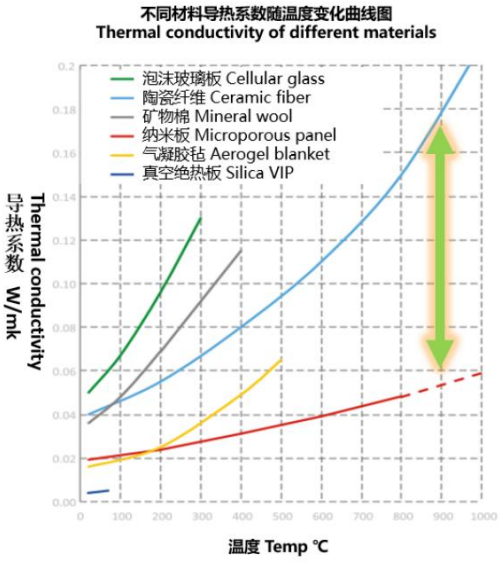
-High-Efficiency Thermal Insulation: Under high-temperature conditions, the thermal insulation performance is 4 times better than that of conventional materials.

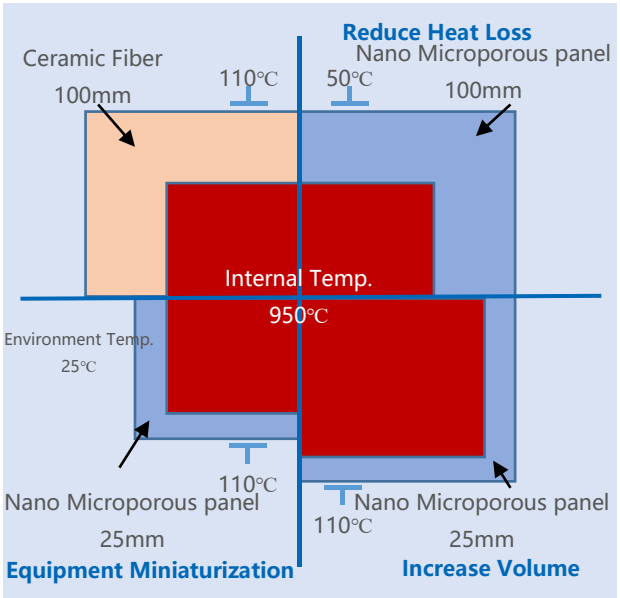
-Thin, Lightweight and High-Efficiency: Meeting the same thermal insulation requirements, it has a thinner insulation layer, effectively increasing usable space.

-Structural Stability: Maintains a stable structure even at high temperatures, with little tendency to shrink or deform.

-Fire and High-Temperature Resistance: Non-combustible material, capable of withstanding high temperatures up to 1000℃.

-Environmental Friendliness: Green and pollution-free, while reducing energy consumption in high-temperature processes and lowering carbon emissions.





Technical Data

Service Temperature	**950℃**
Density	**240Kg/m^3-300Kg/m^3**
Compressive Strength **10% deformation under pressure**	**≥0.3MPa**
Thermal Conductivity (200℃)	**0.022W/(m.K)**
Thermal Conductivity (400℃)	**0.024W/(m.K)**
Thermal Conductivity (600℃)	**0.030W/(m.K)**
Thermal Conductivity (800℃)	**0.033W/(m.K)**
Linear Shrinkage (850℃，24h)	**≤0.3%**
Linear Shrinkage (950℃，24h)	**≤1.0%**

Remark

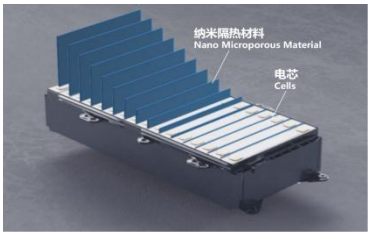
-Thermal conductivity is in accordance with the standard YB/T4130-2005.
-The test of linear shrinkage is in accordance with the standard GB/T5486-2008.
-Sizes can be customized according to customer requirements. For special needs, please contact us.

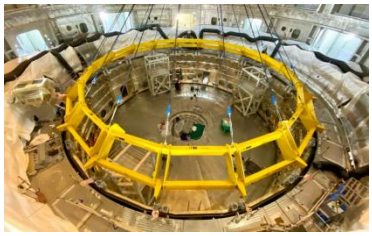
Dimensions and Tolerances

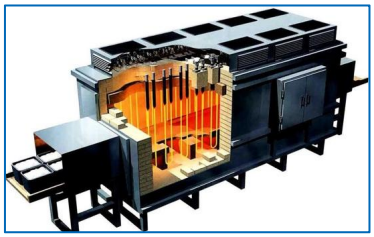
Length & Width	≤1200mm*800mm
Thickness	≤80mm
Length and Width Tolerances	±3mm

Thickness Tolerance	±1mm
Packaging Appearance	POF film/ Aluminum Foil / Fiber Cloth
Package & Delivery	Pallet + Wrapping Film

Application Fields






Battery Cell | Nuclear Station | Metallurgy | Ceramics | Cement | Kiln
Petrochemicals | Building Fire Protection | Industrial Thermal Insulation