

## 1.5 Vermiculite board

Items	Partition Sheet	Ceiling Sheet	Compound Fire Resistent Sheet
Size (mm)	2400x1200x10-120		
	2400x1200x10	1600x800x8	1900x850x43
Bulk Density (kg/m <sup>3</sup> )	700-800	600-700	450-600
Refractoriness      ℃	1200	1200	1200
Absorb-Sound Rate	35	36	60
Tensile Strength      kg/cm <sup>2</sup>	60	50	200
Landscape Orientation	12	10	100
Bending Strength      kg/cm <sup>2</sup>	70	60	100
Heat Conduction Rate	0.028	0.025	0.02
Water Content      %	0.2	0.2	0.2
Acid-Resistance(Under 10% H <sub>2</sub> SO <sub>4</sub> .x25℃x100h)	no flexible in surface	no flexible in surface	no flexible in surface
Machining Performance	saw, nail, plane, rivet, drill	saw, nail, plane, rivet, drill	saw, nail, plane, rivet, drill

### VERMICULITE BOARD

Vermiculite, with layer construction and interlaminar water like mica, mainly has 2 types: brown and white. It has much more higher melting point - can be 1270-1370℃. Because of above particularity, vermiculite mine has much more value for exploitation. Also vermiculite has the particularity of fire-resistance, heat-insulation, sound-absorbability, non-toxic, huge linear expansion rate and tiny heat conduction rate etc. It begins expanding when heated over 200℃ and becomes the worm-like shape. It can reach the maximum volume (15-25 times bigger) when it is heated rapidly to 800℃. This forms the material with low density (80-130 kg/m<sup>3</sup>), excellent insulation properties and good absorption and ion exchange capacity. With the composite of bond and the surface macromolecules, vermiculite can be made into the light multifunctional vermiculite board. The raw vermiculite can be made into vermiculite board directly only after being broken,

to be used for decoration generally. While the vermiculite board which is made from exfoliated vermiculite has much more value on light weight, sound-absorbing, and wide application such as the fire-resistance, heat-insulation.

