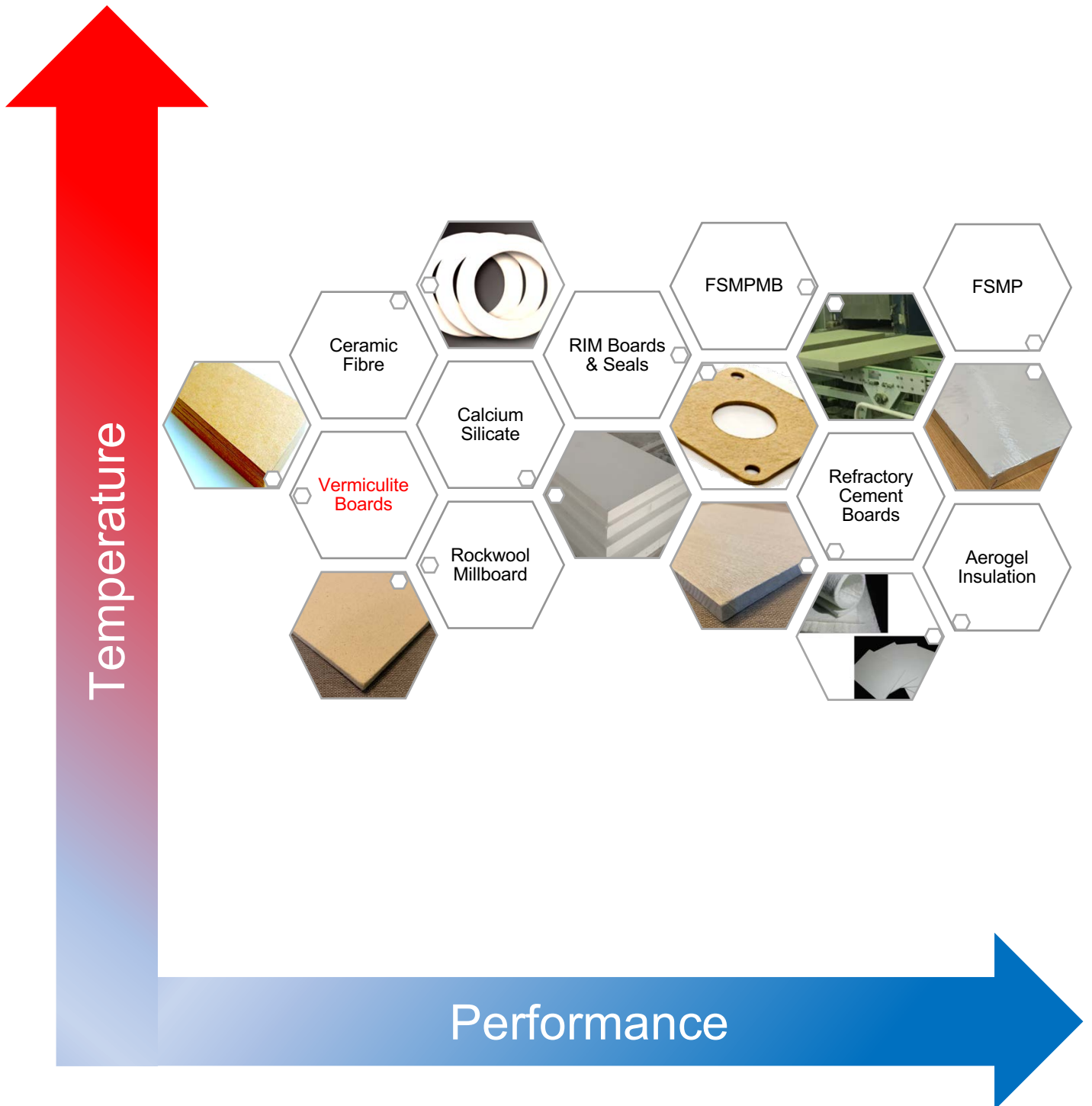


# Vermiculite Insulation Boards

Low Cost | Good Insulation | High Strength | Fire Protection



## Vermiculite Boards & Designs

Wedge W-VCL high temperature insulating boards are manufactured with base material exfoliated vermiculite and inorganic binders. The material is free of asbestos and organic substances. Vermiculite is an aluminium-magnesium layer silicate, which bloats to ultra-lightweight granulates through heating and is processed to boards, bricks and shaped parts through a compression mould procedure.

### Advantages

- High thermal shock resistance.
- Can be applied in the furnace at fire side.
- Fireproof, Non-combustible A1, excellent fire protection.
- No smoke nuisance during heating-up.
- Low thermal conductivity.
- High electrical resistance.
- Easy handling and installation.
- High thermal resistance.
- Good chemical resistance to acids, alkalis and exhaust gases.

### Applications

- Industrial furnace construction for thermal insulation.
- Hot face directly in the furnace and backup insulation.
- Widely used in Aluminium Melting furnace, Steel ladle, tundish, torpedo ladle, glass melting as backup insulation.
- Household appliances: Night storage heaters, Boilers, Hearths, Vessels and tanks.
- Fireplace linings, hot stove.
- Resistant to CO and CH<sub>4</sub> atmosphere;
- Non wetted by fluid aluminium, kryolite and flouride.



Quality			W-VC450	W-VC600	W-VC700	W-VC900
Colour			Brown	Brown	Brown	Brown
Service temperature	°C		1100	1100	1100	1150
Bulk density	kg/m <sup>3</sup>		450 - 475	600	700	900
Porosity	%		81	76	74	57
Cold compressive strength	MPa		2.5	4.2	4.5	6.3
Flexural strength	MPa		0.6 - 0.8	1.6	2	2.1
Linear shrinkage at Service Temperature	%		1	1	1	1.2
Thermal conductivity						
	200 °C	W/m K	0.14	0.16	0.19	0.18
	400 °C	W/m K	0.17	0.18	0.2	0.19
	600 °C	W/m K	0.19	0.2	0.21	0.2
	800 °C	W/m K	0.21	0.22	0.22	0.23
Specific heat capacity @ 400 °C		kJ/kg K	0.94	0.94	0.94	1.14
Chemical Properties						
	SiO <sub>2</sub>	%	46	46	46	44
	MgO	%	19	19	19	25.9
	Al <sub>2</sub> O <sub>3</sub>	%	7	7	7	6.3
	Fe <sub>2</sub> O <sub>3</sub>	%	5.5	5.5	5.5	7.1
	CaO	%	3.5	3.5	3.5	3
	K <sub>2</sub> O	%	10	10	10	6.9
	LOI	%	7	7	7	4
Standard Sizes						
	Length	mm	1000 - 1260			
	Width	mm	330, 610, 1000			
	Thickness	mm	25 - 100			