

## V-1100 (375) Vermiculite insulating boards

for hot-face and back-up insulation - up to 1100°C (2012°F)



Maximum service temperature		
	°C	1100
	°F	2012
Bulk density, dry		
	kg/m <sup>3</sup>	375
	lbs/cu.ft.	23.4
Compressive strength (EN 1094-5: 1995)		
@ room temperature	MPa	1.3
	lbs/sq.in.	189
Modulus of rupture (EN 993-6: 1995)		
	MPa	0.5
	lbs/sq.in.	73
Total porosity (EN 1094-4: 1995)		
	%	86
Specific heat		
	kJ/(kg×K)	0.94
	BTU/(lb×°F)	0.224
Coefficient of reversible thermal expansion (BS 1902: section 5.3: 1990)		
@ 20°C-750°C (68°F-1382°F)	K <sup>-1</sup>	11×10 <sup>-6</sup>
	°F <sup>-1</sup>	6.1×10 <sup>-6</sup>
Resistance to thermal shock (EN 993-11: 1998)		
heating to 950°C (1742°F)	cycles	>10
Linear reheat shrinkage (EN 1094-6: 1999)		
@ 1000°C	%	1.0
@ 1100°C	%	0
Pyrometric cone equivalent (ASTM C24-89 ORTON cones)		
	°C	1300
	°F	2372
Thermal conductivity (ASTM C-182)		
mean temp. @ 200°C	W/(m×K)	0.12
mean temp. @ 400°C	W/(m×K)	0.14
mean temp. @ 600°C	W/(m×K)	0.16
mean temp. @ 800°C	W/(m×K)	-
mean temp. @ 1000°C	W/(m×K)	-
mean temp. @ 392°F	BTU/(sq.ft.xh×°F/in.)	0.83
mean temp. @ 752°F	BTU/(sq.ft.xh×°F/in.)	0.97
mean temp. @ 1112°F	BTU/(sq.ft.xh×°F/in.)	1.11
mean temp. @ 1472°F	BTU/(sq.ft.xh×°F/in.)	-
mean temp. @ 1832°F	BTU/(sq.ft.xh×°F/in.)	-
Chemical analysis, typical	%	
Silica	SiO <sub>2</sub>	47
Titanium dioxide	TiO <sub>2</sub>	0.5
Ferric oxide	Fe <sub>2</sub> O <sub>3</sub>	4
Alumina	Al <sub>2</sub> O <sub>3</sub>	7
Magnesium oxide	MgO	21
Calcium oxide	CaO	2
Sodium oxide	Na <sub>2</sub> O	0.5
Potassium oxide	K <sub>2</sub> O	11
Loss on ignition 1025°C (1877°F)	LOI	7
Colour		sand

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Data are average results of tests conducted under standard procedures and are subject to variation. Data contained in this data sheet are supplied in good faith as a technical service and are subject to change without notice. Misprint and errors excepted.

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