

V-LITE (475) Vermiculite insulating bricks

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 ³	475
	lbs/cu.ft.	29.6
Compressive strength (EN 1094-5: 1995) @ room temperature	MPa	2.5
	lbs/sq.in.	363
Modulus of rupture (EN 993-6: 1995)		
	MPa	1.0
	lbs/sq.in.	145
Total porosity		
	%	81
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 ⁻¹	11×10 ⁻⁶
	°F ⁻¹	6.1×10 ⁻⁶
Resistance to thermal shock (EN 993-11: 1998) heating to 950°C (1742°F)	cycles	>10
Linear reheat shrinkage (EN 1094-6: 1999) 12h at 1000°C (1832°F)	%	1.0
Pyrometric cone equivalent (ASTM C24-89 ORTON cones)		
	°C	1300
	°F	2372
Thermal conductivity (ASTM C-182 supplemented by ASTM C-201)		
mean temp. @ 200°C	W/(m×K)	0.14
mean temp. @ 400°C	W/(m×K)	0.16
mean temp. @ 600°C	W/(m×K)	0.19
mean temp. @ 392°F	BTU/(sq.ft.×h×°F/in.)	0.97
mean temp. @ 752°F	BTU/(sq.ft.×h×°F/in.)	1.11
mean temp. @ 1112°F	BTU/(sq.ft.×h×°F/in.)	1.32
Chemical analysis, typical	%	
Silica	SiO ₂	47
Titanium dioxide	TiO ₂	0.5
Ferric oxide	Fe ₂ O ₃	4
Alumina	Al ₂ O ₃	7
Magnesium oxide	MgO	21
Calcium oxide	CaO	2
Sodium oxide	Na ₂ O	0.5
Potassium oxide	K ₂ O	11
Loss on ignition 1025°C (1877°F)	LOI	7
Colour		Light brown

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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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