

## SM-65 Moler insulating bricks

for back-up insulation - up to 950°C (1742°F)



Maximum service temperature		
	°C	950
	°F	1742
Bulk density, dry		
	kg/m <sup>3</sup>	650
	lbs/cu.ft.	41
Cold crushing strength (EN 1094-5: 1995) @ room temperature	MPa	3.5
	lbs/sq.in.	508
Modulus of rupture (EN 993-6: 1995)	MPa	1
	lbs/sq.in.	145
Total porosity (EN 1094-4: 1995)	%	72
Permeability to air (BS EN 993-4: 1995)	nPm	6
Creep in compression (EN 993-9: 1997) after fluoride gas exposure, 50h at 800°C (1472°F), load 0.1 MPa (14.5 lbs/sq.in.)	%	1.5
Specific heat		
	kJ/(kg×K)	0.8
	BTU/(lb×°F)	0.19
Coefficient of reversible thermal expansion (BS 1902: section 5.3: 1990) @ 20°C-750°C (68°F-1382°F)	K <sup>-1</sup>	3×10 <sup>-6</sup>
	°F <sup>-1</sup>	2×10 <sup>-6</sup>
Resistance to thermal shock (EN 993-11: 1998)	cycles	>30
Linear reheat shrinkage (EN 1094-6: 1999)	%	1
Pyrometric cone equivalent (ASTM C24-89 ORTON cones)		
	°C	1350
	°F	2462
Thermal conductivity (ASTM C-182 supplemented by ASTM C-201)		
mean temp. @ 200°C	W/(m×K)	0.125
mean temp. @ 400°C	W/(m×K)	0.15
mean temp. @ 600°C	W/(m×K)	0.17
mean temp. @ 392°F	BTU/(sq.ft.×h×°F/in.)	0.9
mean temp. @ 752°F	BTU/(sq.ft.×h×°F/in.)	1.04
mean temp. @ 1112°F	BTU/(sq.ft.×h×°F/in.)	1.18
Chemical analysis, typical	%	
Silica	SiO <sub>2</sub>	77
Titanium oxide	TiO <sub>2</sub>	0.7
Ferric oxide	Fe <sub>2</sub> O <sub>3</sub>	7
Alumina	Al <sub>2</sub> O <sub>3</sub>	9
Magnesium oxide	MgO	1.3
Calcium oxide	CaO	0.8
Sodium oxide	Na <sub>2</sub> O	0.4
Potassium oxide	K <sub>2</sub> O	1.6
Sulphur trioxide	SO <sub>3</sub>	1
Loss on ignition 1025°C (1877°F)	LOI	1
Colour		Red

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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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