

# HIPOROS Moler insulating bricks

for back-up insulation - up to 900°C (1652°F)



Maximum service temperature		900
	°C	
	°F	1652
Bulk density, dry		
	kg/m <sup>3</sup>	570
	lbs/cu.ft.	36
Cold crushing strength (EN 1094-5: 1995) @ room temperature	MPa	1.6
	lbs/sq.in.	232
Modulus of rupture (EN 993-6: 1995)		
	MPa	0.5
	lbs/sq.in.	73
Total porosity (EN 1094-4: 1995)		
	%	76
Permeability to air (BS EN 993-4: 1995)		
	nPm	16.5
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)	0.7
	BTU/(lb×°F)	0.17
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>	1.6×10 <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	1300
	°F	2372
Thermal conductivity (ASTM C-182 supplemented by ASTM C-201)		
mean temp. @ 200°C	W/(m×K)	0.11
mean temp. @ 400°C	W/(m×K)	0.12
mean temp. @ 600°C	W/(m×K)	0.13
mean temp. @ 392°F	BTU/(sq.ft.×h×°F/in.)	0.762
mean temp. @ 752°F	BTU/(sq.ft.×h×°F/in.)	0.832
mean temp. @ 1112°F	BTU/(sq.ft.×h×°F/in.)	0.901
Chemical analysis, typical	%	
Silica	SiO <sub>2</sub>	72
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>	8
Magnesium oxide	MgO	1.2
Calcium oxide	CaO	6.5
Sodium oxide	Na <sub>2</sub> O	0.4
Potassium oxide	K <sub>2</sub> O	1.5
Sulphur trioxide	SO <sub>3</sub>	1.2
Loss on ignition 1025°C (1877°F)	LOI	1.5
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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