

SUPER-1100 E Calcium Silicate insulating boards

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



Maximum service temperature		
	°C	1100
	°F	2012
Bulk density, dry		
	kg/m ³	245
	lbs/cu.ft.	15.3
Compressive strength (EN 1094-5: 1995) @ room temperature	MPa	2.7
	lbs/sq.in.	391.5
Modulus of rupture (EN 993-6: 1995)	MPa	1.8
	lbs/sq.in.	261
Total porosity	%	90
Permeability to air (BS EN 993-4: 1995)	nPm	0.5
Creep in compression (EN 993-9: 1997) 50h at 900°C (1652°F) load 0.1 MPa (14.5 lbs/sq.in.)	%	0.4
Specific heat		
	kJ/(kg×K)	0.84
	BTU/(lb×°F)	0.20
Coefficient of reversible thermal expansion (BS 1902: section 5.3: 1990) @ 20°C-750°C (68°F-1382°F)	K ⁻¹	5.5×10 ⁻⁶
	°F ⁻¹	3.1×10 ⁻⁶
Linear reheat shrinkage (EN 1094-6: 1999) 12h at 50°C (122°F) below max. service temp.	%	1.5
Pyrometric cone equivalent (ASTM C24-89 ORTON cones)		
	°C	1345
	°F	2453
Thermal conductivity (ASTM C-182)		
mean temp. @ 200°C	W/(m×K)	0.07
mean temp. @ 400°C	W/(m×K)	0.09
mean temp. @ 600°C	W/(m×K)	0.10
mean temp. @ 392°F	BTU/(sq.ft.×h×°F/in.)	0.49
mean temp. @ 752°F	BTU/(sq.ft.×h×°F/in.)	0.62
mean temp. @ 1112°F	BTU/(sq.ft.×h×°F/in.)	0.69
Chemical analysis, typical	%	
Silica	SiO ₂	47
Alumina	Al ₂ O ₃	0.3
Ferric oxide	Fe ₂ O ₃	0.3
Magnesium oxide	MgO	0.6
Calcium oxide	CaO	45
Sodium oxide	Na ₂ O	0.1
Potassium oxide	K ₂ O	0.1
Loss on ignition 1025°C (1877°F)	LOI	6
Colour		Grey

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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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