



SUPERIOR[®] AR

acid resistant brick for working lining - up to 1400°C

Grade

SUPERIOR[®] AR

Maximum service temperature	°C	1400
	°F	2552
Bulk density, dry (EN ISO 2811-1)	kg/m ³	2050
	lbs/cu.ft.	128
Cold crushing strength (SRPS/EN ISO 604)	MPa	94
	lbs/sq.in.	13059
Thermal expansion at 100°C	%	+0.54
Linear permanent change at 1400°C	%	+0.2/-0.2
Total porosity (EN 1094-4:1995)	%	13
Acid solubility (70% H ₂ SO ₄), Lost in mass%	%	1.1
Water absorption	%	7.02
Coefficient of reversible thermal expansion @ 20 - 750°C (68 - 1382°F)	x10 ⁻⁶ K ⁻¹	0.7
	x10 ⁻⁶ °F ⁻¹	0.4
Resistance to thermal shock (EN 993-11:1998)	Cycles	14
Pyrometric cone equivalent (ASTM C24-01 Orton cones)	°C	1540
	°F	2804
Thermal conductivity (ASTM C-182)	mean temp. @ 200°C	W/(m×K) 1.10
	@ 400°C	1.10
	@ 600°C	-
	@ 800°C	-
	@ 1000°C	1.40
	@ 1200°C	1.55
Chemical analysis, typical	%	
Silica	SiO ₂	67.0
Titanium dioxide	TiO ₂	1.3
Ferric oxide (max)	Fe ₂ O ₃	1.2
Alumina	Al ₂ O ₃	26.0
Magnesium oxide	MgO	-
Sodium oxide	Na ₂ O	2.5
Loss on ignition	LOI	-
HS Tariff number (Harmonized Commodity Description and Coding System)		6901.00.00
Colour		

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. Production plant Darosava, Serbia.
Issued on 02.06.2016