



SUPERIOR® AR

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

Grade

SUPERIOR® AR

Maximum service temperature	°C °F	1400 2552
Bulk density, dry (EN ISO 2811-1)	kg/m³ lbs/cu.ft.	2050 128
Cold crushing strength (SRPS/EN ISO 604)	MPa lbs/sq.in.	94 13059
Termal expansion at 100°C <u>Linear permanente change at 1400°C</u>	%	+0.54 +0.2/-0.2
Total porosity (EN 1094-4:1995)	%	13
Acid solubility (70% H₂SO₄), Lost in mass%	%	1.1
Water absorption	%	7.02
Coefficient of reversible thermal expansion @ 20 - 750°C (68 - 1382°F)	x10⁻⁶ K⁻¹ x10⁻⁶ °F⁻¹	0.7 0.4
Resistance to thermal shock (EN 993-11:1998)	Cycles	14
Pyrometric cone equivalent (ASTM C24-01 Orton cones)	°C °F	1540 2804
Thermal conductivity (ASTM C-182)	mean temp. @ 200°C @ 400°C @ 600°C @ 800°C @ 1000°C @ 1200°C	W/(m×K) 1.10 1.10 - - 1.40 1.55

Chemical analysis, typical

	%	
Silica	SiO₂	67.0
Titanium dioxide	TiO₂	1.3
Ferric oxide (max)	Fe₂O₃	1.2
Alumina	Al₂O₃	26.0
Magnesium oxide	MgO	-
Natrium oxide	Na₂O	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.
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