PRODUCT INFORMATION SHEET
DENSE CASTABLES

SHIRACAST 160AR

SHIRACAST® 160AR is a high temperature castable based on high purity chamotte blended with low iron, calcium aluminate cement.

SHIRACAST 160AR features high abrasion resistance and good strength throughout its temperature range.

The comprehensive range of **SHIRACAST** dense castables covers the complete temperature spectrum up to 1850ºC. Four classes of product are offered; standard, abrasion resistant, gunning and extra-coarse aggregate. These products have been designed utilising different aggregates and cement binders to ensure they meet the requirements of most applications.

TYPICAL PROPERTIES

Bulk Density (kg/m^3)	
After Heating to 110^{o}C.....	2220 - 2320
After Firing to 1000^{o}C.....	2090 - 2190
After Firing to 1600^{o}C.....	2190 - 2290
Cold Crushing Strength (MPa)	
After Heating to 110^{o}C.....	50 - 75
After Firing to 1000^{o}C.....	40 - 60
After Firing to 1600^{o}C.....	90 - >100
Modulus of Rupture (MPa)	
After Heating to 110^{o}C.....	9 - 14
After Firing to 1000^{o}C.....	6 - 10
After Firing to 1600^{o}C.....	11 -15
Permanent Linear Change (%)	
After Heating for 24 hrs at 110^{o}C.....	-0.1 to 0.0
After Firing for 5 hrs at 1000^{o}C.....	-0.3 to -0.1
After Firing for 5 hours at 1600^{o}C....	-1.9 to -1.4

	%
Al_2O_3.....	56
SiO_2.....	37
Fe_2O_3.....	0.6
TiO_2.....	1.5
CaO.....	4.8
MgO.....	Tr
Alkalies.....	0.4

Maximum Service Temperature (^{o}C):	1600
Nominal Shelf Life (months):	12 months

Approximate Thermal Conductivity:

^{o}C	200	400	600	800	1000	1200
W/mK	1.00	1.10	1.20	1.21	1.22	1.25

Installation Procedure.....	IP/001
Heat Up Schedule.....	HS/001

APPLICATION DATA

CASTING

Net Quantity of Dry Material Required for Placement (kg/m^3)	2140
Water Required for Mixing (%)	10.0 – 12.0