

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 1850°C. 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°C.....	2220 - 2320	Al ₂ O ₃				56		
After Firing to 1000°C.....	2090 - 2190	SiO ₂				37		
After Firing to 1600°C.....	2190 - 2290	Fe ₂ O ₃				0.6		
		TiO ₂				1.5		
Cold Crushing Strength (MPa)		CaO.....				4.8		
After Heating to 110°C.....	50 - 75	MgO.....				Tr		
After Firing to 1000°C.....	40 - 60	Alkalies.....				0.4		
After Firing to 1600°C.....	90 - >100							
Modulus of Rupture (MPa)		Maximum Service Temperature (°C):				1600		
After Heating to 110°C.....	9 - 14	Nominal Shelf Life (months):				12 months		
After Firing to 1000°C.....	6 - 10	Approximate Thermal Conductivity:						
After Firing to 1600°C.....	11 -15	°C	200	400	600	800	1000	1200
Permanent Linear Change (%)		W/mK	1.00	1.10	1.20	1.21	1.22	1.25
After Heating for 24 hrs at 110°C.....	-0.1 to 0.0	Installation Procedure.....						
After Firing for 5 hrs at 1000°C.....	-0.3 to -0.1	Heat Up Schedule.....						
After Firing for 5 hours at 1600°C....	-1.9 to -1.4							

APPLICATION DATA

CASTING

Net Quantity of Dry Material Required for Placement (kg/m³)

2140

Water Required for Mixing (%)

10.0 - 12.0

REV: 0

Status: Standard

PIS Number: 446G

Date of Revision:

This data contains typical properties only and should not be used for specification purposes. It is intended as a guide only. For specification and estimating purposes, contact your nearest Shinagawa representative. Australian Standard Test Methods AS1774 are used where applicable. Refer to the Material Safety Data Sheet (MSDS) for recommended work practices and other product safety information.

