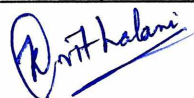


Material Data Sheet			
Material Description:		Low cement Castable 45% Alumina	
Property	Unit	Required parameters	Testing Standard
Max Service Temp	oC	1550	
Maximum grain size	mm	5 to 6	IS 1528- Part 14
Water Required	%	5.5 to 7.0	
Installation Method		Vibration Casting	NA
Raw Material Base		To be mentioned by bidder	
Chemical Analysis			
Al ₂ O ₃	%	46 min	BY XRF or IS: 12107 (Part 3)
SiO ₂	%	49 max	BY XRF or IS: 12107 (Part 3)
Fe ₂ O ₃	%	0.8 max	BY XRF or IS: 12107 (Part 6)
CaO	%	1.5 max	BY XRF or ASTM C 573
Bulk Density at 110 deg / 24 hrs	kg/m ³	2300 min	BIS 10570
Apparent Porosity	%	15 max	IS 1528- Part 15
HMOR at 1000 deg C (Pre-fired at 1000 deg C / 2 hrs)	kg / cm ²	85	ISO 5013
Cold Crushing Strength	kg/cm ²		
At 110 deg C		750	BIS 10570
At 800 deg C		850	BIS 10570
At 1200 deg C		1000	BIS 10570
Abration resistance (Prefired at 800 deg C / 2 Hrs)	CC	10 Max	ASTM C 704
Thermal spalling resistance (1300 deg C to water)	cycles	10 (cube sample)	BIS 1528: Part 3
Thermal Conductivity	W/mK		
400oC		1.1 max	BIS 10570
700oC		1.12 max	BIS 10570
1100oC		1.15 max	BIS 10570
PLC at 1000 deg C / 2 hrs	%	-/+0.4 Max	ASTM C113, 1993 or BIS 10570
CO resistance		Class A	ASTM C 288
Shelf Life		6 months	
Packing		25 Kg bags	



Material Data Sheet			
Material Description:		Low cement Castable 60% Alumina	
Property	Unit	Required parameters	Testing Standard
Maximum Service Temp	°C	1600	
Maximum Grain Size	mm	5 to 6	IS 1528- Part 14
Water Required	%	5.0 to 6.5	
Installation Method		Vibration Casting	NA
Raw Material Base		To be mentioned by bidder	
Chemical Analysis			
Al ₂ O ₃	%	61 min	BY XRF or IS: 12107 (Part 3)
SiO ₂	%	37 max	BY XRF or IS: 12107 (Part 3)
Fe ₂ O ₃	%	0.8 max	BY XRF or IS: 12107 (Part 6)
CaO	%	1.2 max	BY XRF or ASTM C 573
Bulk Density at 110 deg / 24 hrs	kg/m ³	2500 min	BIS 10570
Apparent Porosity	%	14 max	IS 1528- Part 15
HMOR at 1000 deg C (Pre-fired at 1000 deg C / 2 hrs)	kg / cm ²	105	ISO 5013
Cold Crushing Strength	kg/cm ²		
At 110 deg C		750 min	BIS 10570
At 800 deg C		850 min	BIS 10570
At 1200 deg C		1000 min	BIS 10570
Abration resistance (Prefired at 1200 deg C / 3 Hrs)	CC	6 Max	ASTM C 704
Thermal spalling resistance (1300 deg C to water)	cycles	10 (cube sample)	BIS 1528: Part 3
Thermal Conductivity	W/mK		
400 °C		1.0 max	BIS 10570
600 °C		1.2 max	BIS 10570
800 °C		1.3 max	BIS 10570
PLC at 1000 deg C / 2 hrs	%	-/+0.4 Max	ASTM C113, 1993 or BIS 10570
CO resistance		Class A	ASTM C 288
Shelf Life		6 months	
Packing		25 Kg bags	



Material Data Sheet			
Material Description:		Low cement Castable 90% Alumina	
Property	Unit	Required parameters	Testing Standard
Maximum Service Temp	°C	1700	
Maximum Grain Size	mm	5 to 6	IS 1528- Part 14
Water Required	%	4.0 to 5.0	
Installation Method		Vibration Casting	NA
Raw Material Base		To be mentioned by bidder	
Chemical Analysis			
Al ₂ O ₃	%	90.5 min	BY XRF or IS: 12107 (Part 3)
SiO ₂	%	5.7 max	BY XRF or IS: 12107 (Part 3)
Fe ₂ O ₃	%	0.8 max	BY XRF or IS: 12107 (Part 6)
CaO	%	1.5 max	BY XRF or ASTM C 573
Bulk Density at 110 deg / 24 hrs	kg/m ³	3000 min	BIS 10570
Apparent Porosity	%	12 max	IS 1528- Part 15
HMOR at 1000 deg C (Pre-fired at 1000 deg C / 2 hrs)	kg / cm ²	120	ISO 5013
Cold Crushing Strength	kg/cm ²		
At 110 deg C		950 min	BIS 10570
At 800 deg C		1000 min	BIS 10570
At 1200 deg C		1150 min	BIS 10570
Abration resistance (Prefired at 1200 deg C/ 3 Hrs)	CC	3 Max	ASTM C 704
Thermal spalling resistance (1300 deg C to water)	cycles	10 (cube sample)	BIS 1528: Part 3
Thermal Conductivity	W/mK		
400 °C		2.2 max	BIS 10570
600 °C		2.30 max	BIS 10570
800 °C		2.35 max	BIS 10570
PLC at 1000 deg C / 2 hrs	%	-/+0.5 Max	ASTM C113, 1993 or BIS 10570
CO resistance		Class A	ASTM C 288
Shelf Life		6 months	
Packing		25 Kg bags	

Material Data Sheet			
Material Description:		Insulite castable	
Property	Unit	Required parameters	Testing Standard
Max Service Temp	°C	1300	
Maximum Grain Size	mm	5 max	IS 1528- Part 14
Water Required	%	40 to 50	
Installation Method		Vibration Casting	NA
Raw Material Base		To be mentioned by bidder	
Chemical Analysis			
Al ₂ O ₃	%	42 min	BY XRF or IS: 12107 (Part 3)
SiO ₂	%	40 max	BY XRF or IS: 12107 (Part 3)
Fe ₂ O ₃	%	0.8 max	BY XRF or IS: 12107 (Part 6)
CaO	%	8 max	BY XRF or ASTM C 573
Bulk Density at 110 deg / 24 hrs	kg/m ³	950 min	BIS 10570
Apparent Porosity	%	N/A	IS 1528- Part 15
HMOR at 1000 deg C (Pre-fired at 1000 deg C / 2 hrs)	kg / cm ²	N/A	ISO 5013
Cold Crushing Strength	kg/cm ²		
At 110 deg C		50	BIS 10570
At 800 deg C		40	BIS 10570
At 1200 deg C		30	BIS 10570
Abration resistance (Prefired at 800 deg C / 2 Hrs)	CC	N/A	ASTM C 704
Thermal spalling resistance (1300 deg C to water)	cycles	N/A	BIS 1528: Part 3
Thermal Conductivity	W/mK		
500°C		0.25max	BIS 10570
800°C		0.27 max	BIS 10570
PLC at 800 deg C / 2 hrs	%	-/+0.2 Max	ASTM C113, 1993 or BIS 10570
CO resistance		N/A	ASTM C 288
Shelf Life		9 months	
Packing		25 Kg bags	

