



## THE QUALITY OF LOW CEMENT CASTABLE

Low cement castable are made by talking the advantage of super-fine-powder technique and method for adding de-gluing agent. As the shortcomings of other products result from using a lot of water for construction, this low cement castable can be worked with minimum water thus making the tissue to be very fine and compact with high strength to resist corrosion and wear.

### Features :

- Low apparent porosity.
- High strength in various temperature zones.
- Excellent spalling resistance and corrosion resistance.

### Typical Properties

Brand		LCS-A100CR	LCS-A100	LCS-A90	LCS-A80	LCS-A70
Properties						
Max. Service Temperature °C		1800	1800	1800	1700	1700
Quantity Required (Kg/m <sup>3</sup> )		3270	3070	2890	2740	2820
Water Required For Mixing (%)		5-6	6-8	6.5	7-8	6-8
Chemical Composition (%)	Al <sub>2</sub> O <sub>3</sub>	83.5	97.8	90	80	71
	SiO <sub>2</sub>	10(Cr <sub>2</sub> O <sub>3</sub> )		7.5	15.8	25.1
	CaO	0.7	1.4	1.5	1.5	1.6
Modulus of Rupture After Heating(Mpa) (Bending Strength)	110°C	5.4	-	10.1	13.1	11.9
	1000°C	-	-	9.3	10.5	9.8
	1500°C	29.1	50.6	24.8	17.1	16.0
Cold Crushing Strength(Mpa)	110°C	26.0	-	39.1	35.2	21.8
	1000°C	-	-	56.3	63.4	41.5
	1500°C	173.7	225.4	77.0	95.0	66.1
Permanent Linear Change(%)	1500°C	0.38	0.40	0.94	0.13	0.68
Apparent Porosity(%)	1500°C	17.03	19.17	23.4	13.5	18.5
Thermal Expansion at1000°C (%)		0.8	0.8	0.7	0.6	0.6
Thermal Conductivity (W/m.k)	At 500°C	4.53	4.65	2.44	2.20	2.10
	At1000°C	3.60	4.41	2.21	1.97	1.63
Application						
Remark						

Brand		LCS-A60	LCS-A50	LCS-A40
Properties				
Max. Service Temperature °C		1600	1500	1450
Quantity Required (Kg/m <sup>3</sup> )		2460	2450	2420
Water Required For Mixing (%)		7-8	7-8	7-8
Chemical Composition (%)	Al <sub>2</sub> O <sub>3</sub>	65.1	54.6	50.0
	SiO <sub>2</sub>	31.1	41.5	41.9
	CaO	1.6	1.7	2.1
Modulus of Rupture After Heating(Mpa)	110°C	9.1	12.9	11.9
	1000°C	8.9	5.4	9.5
	1500°C	17.0	16.3	14.8(1400°C)
Cold Crushing Strength(Mpa)	110°C	51.7	65.7	62.6
	1000°C	63.4	72.8	
	1500°C	85.5	99.5	82.0(1400°C)
Permanent Linear Change(%)	1500°C	1.50	1.18	-1.43(1400°C)
Apparent Porosity(%)	1500°C	14.2	15.0	13.1(1400°C)
Thermal Expansion at1000°C (%)		0.5	0.5	0.3
Thermal Conductivity (W/m.k)	At 500°C	1.74	1.74	1.16
	At1000°C	1.63	1.63	1.16
Application				
Remark				