



THE QUALITY OF LIGHT WEIGHT CASTABLE

Light weight castable are composed of light weight refractory materials as aggregate and hydraulic alumina cement as the binder. These castable provide good insulation properties which contribute greatly to energy conservation. Certain amount of water is added to make the

castable well uniformly mixed. They can be used as inner or back up lining of kilns or furnaces. They can also be applied by casting, ramming, troweling or gunning. No violent or any unadequate vibration is permitted in order to eliminate segregation of the mix.

Typical Properties

Brand		ICM-170	ICM-155	ICM-140 (LCT-80A)	ICM-135	ICM-120H	ICM-120
Properties							
Max. Service Temperature (°C)		1700	1550	1400	1350	1200	1200
Quantity Required (Kg/m ³)		1740	1600	1280	900	1100	960
Water Required For Mixing (%)		11.5	21	32	50	50	29
Chemical Composition (%)	Al ₂ O ₃	96	58	40	38	40	36
	SiO ₂	0.4					
Modulus of Rupture After Heating(Mpa) (Bending Strength)	110°C	3.2	4.5	2.1	1.0	2.5	1.0
	1100°C	1.4	2.4(800°C)	1.4		1.4	
	1350°C	12.5(1500°C)	11.6(1500°C)	2.0(1400°C)	1.2(1300°C)	1.6(1200°C)	1.1(1200°C)
Cold Crushing Strength(Mpa)	110°C	10.6	13.0	5.3	3.3	8.1	3.0
	1000°C	2.7	12.4(800°C)	4.2		3.3	
	1350°C	27.5(1500°C)	31.9(1500°C)	3.8(1400°C)	5.0(1300°C)	5.7(1200°C)	5.0(1200°C)
Permanent Linear Change(%)	1000°C	0	0(800°C)	-0.44		-0.12	
	1350°C	-0.4(1500°C)	-0.4	0.62(1400°C)	-0.4(1300°C)	-0.8(1200°C)	-1.0(1200°C)
Thermal Conductivity (Kcal/m.h.°C)	At 300°C	0.95	0.40	0.40	0.26	0.30	0.30
	At 600°C	0.75	0.42	0.42	0.28	0.35	0.35
	At 800°C	0.75	0.45	0.43	0.30	0.37	0.37

Brand		ICM-110	ICM-100 (LCT-50)	ICM-80	LCT-30	LCT-G	LCT-80AH
Properties							
Max. Service Temperature (°C)		1100	1000	800	1100	1000	1400
Quantity Required (Kg/m ³)		940	770	600	580	500	1420
Water Required For Mixing (%)		50	55	95	100	100	30-36
Chemical Composition (%)	Al ₂ O ₃	38	30.0	28.0	27	28	43
	SiO ₂	-	-	-	-	-	-
Modulus of Rupture After Heating(Mpa)	110°C	0.4	1.0	0.6	0.5	0.6	3.2
	800°C	0.7(1000°C)	0.3	0.3	0.4	0.2	-
	1300°C	-	-	-	-	-	8.0
Cold Crushing Strength(Mpa)	110°C	1.2	1.1	2.7	1.0	1.1	6.8
	800°C	1.6(1000°C)	1.5	1.3	1.1	0.9	-
	1300°C	-	-	-	-	-	12.0
Permanent Linear Change(%)	110°C	-0.01	-0.13	-0.02	-	-0.22	-
	800°C	-0.31(1000°C)	-0.25	-0.60	-0.6	-0.72	-
	1300°C	-	-	-	-	-	-0.40(1400°C)
Thermal Conductivity (Kcal/m.h.°C)	At 300°C	0.29	0.17	0.10	0.10	0.10	0.40
	At 600°C	0.34	0.21	0.12	0.12	0.12	-
	At 800°C	0.36	0.25	0.18	0.17	0.17	0.43