

**Asahi light caster** April, 2011

Product		LC-17U	LC-16RAM	LC-15	LC-14	LC-13	LC-12N	LC-12T	LC-11	LC-10	LC-10S	LC-10N	LC-7	LC-RMG
Max service temperature(°C)		1750	1650	1450	1400	1400	1350	1350	1200	1200	1200	1100	900	1100
Installation requirement(t/m <sup>3</sup> )		1.25	1.55	1.60	1.45	1.20	1.10	1.10	1.00	0.70	0.80	0.70	0.35	1.20
Water additions(wt%)		17~22	8~10	20~25	30~35	30~40	30~40	35~45	30~40	70~85	60~75	45~65	80~110	30~40
Chemical composition (%)	SiO <sub>2</sub>	0.5	32	35	40	40	40	38	37	42	39	40	46	49
	Al <sub>2</sub> O <sub>3</sub>	93	64	50	44	44	42	42	41	32	33	15	11	28
Bulk density	110°C × 24hrs.	1.35	1.55	1.70	1.55	1.30	1.20	1.20	1.10	0.75	0.85	0.75	0.40	1.30
	( )Temp.x 3hrs.	1.25 (1500)	1.50 (1500)	1.60 (1400)	1.45 (1200)	1.20 (1300)	1.10 (1200)	1.10 (1200)	1.00 (1000)	0.65 (1000)	0.65 (1000)	0.70 (1000)	0.35 (700)	1.23 (900)
Cold crushing strength (MPa) Bending strength (MPa)	110°C × 24hrs.	9 (2.0)	18 (5.0)	15 (4.0)	10 (2.5)	6 (2.0)	5 (2.0)	5 (1.5)	5 (1.5)	1.5 (0.4)	2.5 (0.7)	2 (1.0)	0.6 (0.2)	5 (2.0)
	600°C × 3hrs.			10 (1.5)	9 (1.5)	4 (1.0)	4 (1.5)	4 (1.2)					0.4 (0.1)	3 (1.0)
	900°C × 3hrs.		20 (5.0)	10 (1.5)	9 (1.5)	4 (1.0)	4 (1.5)	4 (1.2)						3 (1.0)
	1000°C × 3hrs.									2.5 (1.0)	1.5 (0.8)	3 (1.0)	1 (0.5)	
	1200°C × 3hrs.	10 (4.5)		9 (1.5)	8 (1.5)	6 (2.0)	4 (1.5)	4 (1.2)						3 (1.0)
	1400°C × 3hrs.	10 (3.0)	25 (6.0)											
Permanent linear change (%)	( )Temp.x 3hrs.	0.5 (1500)	0.2 (1500)	-1.0 (1400)	-0.3 (1200)	-1.0 (1300)	-0.8 (1200)	-0.8 (1200)	-0.3 (1000)	-1.3 (1000)	-1.3 (1000)	-1.4 (1000)	-1.2 (700)	-0.5 (900)
Thermal expansion (%)	at ( )Temp.	0.6 (1000)	0.5 (1000)	0.3 (1000)	0.25 (1000)	0.25 (1000)	0.2 (1000)							0.1 (800)
Thermal conductivity (W/mK)	at 100°C	1.3	1.5	0.50	0.50	0.35	0.30	0.30	0.30	0.17	0.17	0.17	0.11	0.35
	at 400°C	1.1	1.3	0.55	0.55	0.45	0.35	0.35	0.35	0.21	0.21	0.21	0.14	0.40
	at 1000°C	0.90	1.4	0.60	0.60	0.50	0.40	0.40	0.40	0.30	0.30	0.30		0.45
Standard package quantity(kg)		25	25	25	25	25	25	25	20	20	20	20	10	25
Features		High heat resistance Spalling resistance	Heat resistance	Heat resistance	General purpose	General purpose	General purpose	Trowel application	General purpose	General purpose	High strength	General purpose	High insulative performance	High strength
Typical applications		High-temperature kilns Special kilns	Types of kilns	Types of kilns	Types of kilns	Types of kilns	Types of kilns	Types of kilns	Heating furnace	Types of kilns	Types of kilns	Types of kilns	Types of kilns	Alumium melting furnace,Aluminum holding furnace

※The data shown here is a representative value, and no hallmark value.

※If LC-10N and LC-7 containing portland cement binder are mixed with other products containing calcium aluminate cement binder, there will have a fast-setting reaction. So please clean the mixer, when the same mixer is used to mix these two types of products.