



## Monolithic Refractories for Cement Industry

### Data Sheet

Item		Corundum/Mullite based abrasion resistant castable			Low cement high alumina castable			
		C18S	C80MC	C70MC	C16T	C16	C160	C15B
Al <sub>2</sub> O <sub>3</sub> +SiC	% ≥	90	80	70	---	---	---	---
Al <sub>2</sub> O <sub>3</sub>	% ≥	---	---	---	75	70	75	70
Bulk density kg/m <sup>3</sup> ) ≥	110°C×24h	3000	2900	2750	2650	2600	2700	2600
C.C.S. (MPa) ≥	110°C×24h	150	100	100	100	100	100	80
	1100°C×3h	160	120	110	110	100	110	100
	1500°C×3h	160	120	110	110		150	
M.O.R. (MPa) ≥	110°C×24h	15	12	10	10	8	14	10
	1100°C×3h	20	14	12	12	10	15	12
	1500°C×3h	20	14	12	12	---	15	---
Permanent linear change (%)	1100°C×3h	±0.3	±0.3	±0.3	±0.3	±0.4	±0.4	±0.4
	1300°C×3h	---	---	---	---	±0.5	---	±0.5
	1500°C×3h	±0.5	±0.5	±0.5	±0.5	---	±0.5	---
Max. service temperature (°C)		1750	1600	1600	1600	1600	1600	1500
Water addition (%)		4.5~5.0	4.5~5.5	5.5~6.5	5.5~6.5	6.0~7.5	5.5~6.0	5.5~6.5
Alkali resistance		---	---	---	---	Grade II	---	Grade II
Application		Outlet, burner			Kiln hood, cooler, etc.	Outlet, burner, kiln hood, cooler, etc.		Kiln hood, cooler, etc.



Item		Andalusite containing abrasion and thermal shock resistant castable	High alumina self-flowing castable	Gunning castable	Alkali resistant castable	
		C70HC	CZL70	CPB70	C13NL	C14NL
Al <sub>2</sub> O <sub>3</sub>	% ≥	65	---	---	48	48
SiC	% ≥	8	---	---	50	50
Al <sub>2</sub> O <sub>3</sub> +SiC	% ≥	---	70	70	---	---
Bulk density kg/m <sup>3</sup> ) ≥	110°C×24h	2900	2600	2500	2100	2200
	1500°C×3h	---	---	---	---	---
C.C.S. (MPa) ≥	110°C×24h	130	60	60	70	70
	1100°C×3h	120	80	80	70	70
	1500°C×3h	120	---	---	---	---
M.O.R. (MPa) ≥	110°C×24h	15	6	8	7	7
	1100°C×3h	12	8	10	7	7
	1500°C×3h	12	---	---	---	---
Permanent linear change (%)	1100°C×3h	±0.3	±0.4	±0.5	±0.4	±0.4
	1500°C×3h	0~0.3	---	---	---	---
Abrasion resistance (cm <sup>3</sup> ) ≤	110°C×24h	Grade I	---	---	---	---
Installation method		vibration	---	---	---	---
Max. service temperature (°C)		---	1600	1600	1300	1400
Water addition (%)		---	6~7	6.5~7.5	6.5~7.5	6~7
Alkali resistance		---	---	---	Grade I	Grade I
Application		Outlet, burner	Kilns hood, cooler, calciner, etc.		Preheater system, calciner, side wall and orrrf of cold end in cooler, etc.	



Item		Abrasion resistant ramming mixes for power generation by using remnant heat		Abrasion resistant plastics for application at medium and low temperature	
		C80GD	C80TM	C200	C500
Al <sub>2</sub> O <sub>3</sub> +SiC	% ≥	80	80	70	80
Bulk density kg/m <sup>3</sup> ≥	110°C×24h	2800	2800	2800	2900
C.C.S. (MPa) ≥	110°C×24h	60	40	130	150
	550°C×3h	80	60	---	---
M.O.R. (MPa) ≥	110°C×24h	8	6	20	25
	550°C×3h	12	8	---	---
Permanent linear change (%)	550°C×3h	±0.4	±0.4	---	---
Abrasion resistance (cm <sup>3</sup> ) ≤	550°C×3h	8	8	---	---
	110°C×24h	---	---	4.5	4.5
Installation method		Ramming	Goating	Smearing	
Thickness of abrasion resistant layer		20~30	20~30	20~25	
Application		The power generation system by using remnant heat		Abrasion resisting layer working at medium and low temperature	

Note: Technical Data are typical results from test pieces. This information, subject to change, is offered solely for your consideration. Users of our products should make their own tests to determine the suitability of each product for their particular purposes.