Monolithic Refractories for Blast Furnace

Data Sheet

Item			Al_2O_3- SiO_2-C castable for blast furnace tapping channel				Alumina-spinel castable for ladle		High-alumina plastic castable	
			CTG-11	CTG-12	CTG-13	CTG-14	CAM-70	CAM-85	CJS-1500	CJS-1600
Al_2O_3	%	≥	60	50	45	45	70	85	55	65
SiO_2+C	%	≥	12	30	7	12	---	---	---	---
CaO	%	≤	1.5	1.5	1.5	1.5	---	---	---	---
MgO	%	≥	---	---	---	---	12	10		
SiO_2	%	≤	---	---	---	---	---	---	40	30
Bulk density g/cm^3）≥	110℃×24h		2.7	2.6	2.4	2.4	2.8	3.0	2.3	2.4
	1000℃×3h		---	---	---	---	2.7	2.9	---	---
	1450℃×3h		2.6	2.5	2.35	2.35	---	---	---	---
	1500℃×3h		---	---	---	---	2.9	3.1	---	---
C.C.S. (MPa) ≥	110℃×24h		30	20	30	20	40	40	---	---
	1450℃×3h		40	30	40	30	60	60	---	---
M.O.R. (MPa)≥	110℃×24h		5	4	5	4	5	6	5-7	5-8
	1000℃×3h		---	---	---	---	8	8	---	---
	1450℃×3h		5	5	6	5	---	---	---	---
	1500℃×3h		---	---	---	---	10	12	10	12
Linear change after heating	110℃×24h						0~ -0.1	0~ -0.1	-0.2~0	-0.2~0
	1000℃×3h						0~ +0.2	0~ +0.2		
	1450℃×3h		±0.5	±0.5	±0.6	±0.6				
	1500℃×3h						0~+0.8	0~+0.8	0~+0.5	0~+0.5
Max. service temperature (℃)							1760	1800	1500	1600
Using area			Main ditch of molten iron line	Main ditch of slag line	Iron trough	Slag trough	Linings of ladle (Vibration casting method construction)		Linings of heating furnace of steel rolling, incinerator (Ramming construction method)	

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ADD: FLOOR 17TH, NO.4 BUILDING, ZHUYU INTERNATIONAL COMMERCIAL CENTER NO.9 SHOUTI SOUTH ROAD, HAIDIAN DISTRICT, BEIJING CHINA. POSTCODE: 100044

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Monolithic Refractories for EAF

Data Sheet

Item		Corundum castable for roof	Refractory pre-cast shapes for roof	Tap hole fillers	Dry ramming mix for bottom	Gunning mix
Al_2O_3 % ≥		82	82	—	—	—
MgO % ≥		—	—	50	80	>86
CaO % ≤		2.0	2.0	—	4～10	
SiO_2 % ≤		—	—	35～40	2.0	—
Fe_2O_3 %		—	—	—	4～10	—
Cr_2O_3 %		—	2～5	—	—	—
Bulk density（g/cm^3）≥	110℃×24h	2.9	2.9	—	2.3（Packing density）	2.2
	1600℃×3h	2.9	—	—		—
C.C.S. (MPa) ≥	110℃×24h	30	30	—	—	60
	1600℃×3h	40	—	—	80	—
M.O.R.(MPa) ≥	110℃×24h	6.0	6.0	—	—	—
	1600℃×3h	8.0	—	—	—	4.0
Max. service temperature（℃） ≥		1750	—	—	—	—
Refractoriness (℃)		—	—	1710~1750	—	—
Grain size distribution (%)		—	—	>6mm,≤10	—	<3mm,≥90 <1mm,≥35 <0.074mm,≥20
Linear change after heating (%)		0.2～0.6 （1600℃×5hrs）	—	—	—	0.0～0.4 （1500℃×3hrs）
Application		Used for in situ casting or pre-casting for tri-angle area of UHP EAF roof		Used to fill the tap hole of EBT	Used for dry ramming of UHP EAF bottom	Used for slag zone gunning of EAF

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Monolithic Refractories for Hot Blast Stove

Data Sheet

Item		Fireclay Based Mortar				Mullite Based Mortar	High Alumina Based Mortar
		CLN55A	CNM13P	CNM12P	CNM11P	CHM01P	CHM12P
Al_2O_3 % ≥		42	45	50	55	85	70
M.O.R. (MPa) ≥	110℃×24h	1	2	2	2	3	4
	1200℃×3h	3	6	---	---	---	---
	1300℃×2h	---	---	6	---	---	6
	1400℃×2h	---	---	---	6	---	---
	1500℃×2h	---	---	---	---	6	---
Grain size %	110℃×24h (≤)	1	1	1	1	1	1
	1200℃×3h (≥)	50	50	50	50	50	50
Refractoriness (℃) ≥		1710	1730	1750	1790	1790	1790
Refractoriness under load T_2 (℃) ≥		1200	1200	1250	1350	1650	1550
Adhesive time (min)		1-2	1-2	1-2	1-2	1-2	1-2
Application		Used for same material masonry					

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Monolithic Refractories for Ladle and Tundish

Data Sheet

Item		Alumina magnesium castable	Alumina spinel castable	Magnesium calcium gunning		Painting material for tundish	Alumina maginesium drying vibrating castable for tundish		Current regulator
				CPL-1	CPL-2		CD	CGD	
Al_2O_3 % ≥		70	72	—	—	—	—	—	—
MgO % ≥		9	10	75-80	70-80	60-85	50-85	50-70	75
CaO % ≤		—	—	5-10	2-10	—	—	—	6.0
SiO_2 % ≤		10	9	4	10	—	—	—	—
SiO_2+ Fe_2O_3+ Al_2O_3 % ≤									10
Bulk density ≥	g/cm^3	—	—	—	—	2.0	—	—	2.85
C.C.S. (MPa) ≥	110℃×24hrs	60	90	—	—	5.0	—	—	80
	1500℃×3hrs	80	100	—	—	8.0	8.0	8.0	—
M.O.R.(MPa) ≥	110℃×24hrs	8	11.5	—	—	—	—	—	—
	1500℃×3hrs	13	11.5	—	—	—	—	—	—
Refractoriness (℃) ≥		—	—	1790	1790	—	—	—	—
Grain size (mm) ≤		—	—	—	—	3	—	—	—
Permanent linear change	1500℃×2hrs	-0.1~0.2	-0.2~0.35	—	—	—	—	—	—
	1500℃×3hrs	—	—	—	—	-2.5~-1.0	—	—	—
Life time (hr)		—	—	—	—	10-40	10-60	10-40	—

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