

CONVENTIONAL DENSE CASTABLES (Calcined Clay Based)

CUMI

CUMICRETE

CHARACTERISTICS	UNIT	CUMICRETE CK 15	CUMICRETE CK 14	CUMICRETE CK 14 SI	CUMICRETE CK 14 G
Maximum Service Temperature	°C	1450	1500	1400	1500
Maximum Grain Size	mm.	6	6	6	6
Bulk Density Dried at 110°C/24 hrs.	gm/cc,min	2.00	2.10	2.10	2.00
Cold Crushing Strength	Kg/cm ²				
Dried at 110°C/24 hrs	min.	400	400	350	300
Fired at 1000°C/3 hrs	min.	175	200	200	175
Fired at 1500°C/3 hrs	min.	400 at 1450°C/3 hrs	500	400 at 1350°C/3 hrs	400
Permanent Linear Change	%				
Fired at 1000°C/3 hrs	max.	± 0.15	± 0.15	± 0.30	± 0.15
Fired at 1500°C/3 hrs	max.	-1.5 at 1450°C/3 hrs	-1.0	-1.5 at 1350°C/3 hrs	-1.5
Recommended Water Addition (By wt.)	%	10 - 12	10 - 12	10 - 12	10 - 15
Chemical Analysis	%				
Al ₂ O ₃	min.	46.0	50.0	50.0	50.0
SiO ₂	max.	45.0	42.0	-	42 (SiO ₂)
Fe ₂ O ₃	max.	1.00	1.00	-	1.00

Shelf Life : 9 months from the date of manufacture

Packing : In 50 Kg LDPE lined HDPE bags

Note : Water requirements indicated are based on laboratory test conditions.

Actual water requirement may vary subject to site conditions.

The properties shown are for vibratory cast material only unless specified otherwise.



CARBORUNDUM UNIVERSAL LIMITED
SUPER REFRACTORIES



Works

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www.cumi-murugappa.com/refractories/**



CONVENTIONAL DENSE CASTABLES (Calcined Clay & Calcined Bauxite Based)



CUMI

CUMICRETE

CHARACTERISTICS	UNIT	CUMICRETE CA 60	CUMICRETE CA 60 C	CUMICRETE CA 85 M
Maximum Service Temperature	°C	1600	1500	1650
Maximum Grain Size	mm.	6	6	6
Bulk Density Dried at 110°C/24 hrs.	gm/cc,min	2.20	2.20	2.60
Cold Crushing Strength	Kg/cm ²			
Dried at 110°C/24 hrs	min.	400	350	500
Fired at 1000°C/3 hrs	min.	200	200	300
Fired at 1550°C/3 hrs	min.	500	400 at 1400°C/3 hrs	550 at 1450°C/3 hrs
Permanent Linear Change	%			
Fired at 1000°C/3 hrs	max.	± 0.20	± 0.30	± 0.30
Fired at 1550°C/3 hrs	max.	± 1.50	±1.50 at 1400°C/3 hrs	±1.5 at 1450°C/3 hrs
Recommended Water Addition (By wt.)	%	9 - 11	10 - 12	9 - 11
Chemical Analysis	%			
Al ₂ O ₃	min.	60.0	60.0	84.0
SiO ₂	max.	32.0	-	-
Fe ₂ O ₃	max.	1.00	2.00	1.80

Shelf Life : 9 months from the date of manufacture

Packing : In 50 Kg LDPE lined HDPE bags

Note : Water requirements indicated are based on laboratory test conditions.

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CONVENTIONAL DENSE CASTABLES (Calcined Bauxite, Fused & Tabular Alumina Based)



CUMICRETE

CHARACTERISTICS	UNIT	CUMICRETE CA 392	CUMICRETE CA 392 S	CUMICRETE CA 90	CUMICRETE CA 66
Maximum Service Temperature	°C	1750	1700	1800	1800
Maximum Grain Size	mm.	6	6	5	6
Bulk Density Dried at 110°C/24 hrs.	gm/cc,min	2.75	2.70	2.75	2.80
Cold Crushing Strength	Kg/cm ²				
Dried at 110°C/24 hrs	min.	500	550	650	600
Fired at 1000°C/3 hrs	min.	300	350	-	450
Fired at 1550°C/3 hrs	min.	550	550	-	700
Permanent Linear Change	%				
Fired at 1000°C/3 hrs	max.	± 0.20	± 0.30	-	± 0.20
Fired at 1550°C/3 hrs	max.	± 1.00	± 1.00	± 1.00	± 0.50
Recommended Water Addition (By wt.)	%	8-10	8-10	8-10	6.5-8.0
Chemical Analysis	%				
Al ₂ O ₃	min.	90.0	87.0	90.0	94.0
SiO ₂	max.	-	-	-	0.20
Fe ₂ O ₃	max.	1.00	1.50	0.60	0.10

Shelf Life : 9 months from the date of manufacture

Packing : In 50 Kg LDPE lined HDPE bags

Note : Water requirements indicated are based on laboratory test conditions.

Actual water requirement may vary subject to site conditions.

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CONVENTIONAL DENSE CASTABLES (Fused Alumina Based)



CUMI

CUMICRETE

CHARACTERISTICS	UNIT	CUMICRETE CA 94	CUMICRETE CA 95	CUMICRETE CA 96
Maximum Service Temperature	°C	1750	1800	1800
Maximum Grain Size	mm.	5	5	6
Bulk Density Dried at 110°C/24 hrs.	gm/cc,min	2.70	2.90	2.90
Cold Crushing Strength	Kg/cm ²			
Dried at 110°C/24 hrs	min.	650	650	500
Fired at 1000°C/3 hrs	min.	500 at 1200°C/3 hrs	-	400
Fired at 1550°C/3 hrs	min.	-	-	600
Permanent Linear Change	%			
Fired at 1000°C/3 hrs	max.	± 0.3 at 1200°C/3 hrs	-	± 0.15
Fired at 1550°C/3 hrs	max.	-	± 0.20	± 0.20
Recommended Water Addition (By wt.)	%	7 - 9	7 - 9	6 - 8
Chemical Analysis	%			
Al ₂ O ₃	min.	94.0	95.0	95.0
SiO ₂	max.	-	-	0.15
Fe ₂ O ₃	max.	0.30	0.50	0.10

Shelf Life : 9 months from the date of manufacture

Packing : In 50 Kg LDPE lined HDPE bags

Note : Water requirements indicated are based on laboratory test conditions.

Actual water requirement may vary subject to site conditions.

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CONVENTIONAL DENSE CASTABLES (MEDIUM PURITY)



CUMICRETE

CHARACTERISTICS	UNIT	CUMICRETE M 45	CUMICRETE M 45 SPL	CUMICRETE M 70
Maximum Service Temperature	°C	1400	1350	1450
Maximum Grain Size	mm.	5	5	5
Bulk Density Dried at 110 °C/24 hrs.	gm/cc,min	2.00	2.10	2.50
Cold Crushing Strength	Kg/cm ²			
Dried at 110 °C/24 hrs	min.	250	400	400
Fired at 1350 °C/3 hrs	min.	250	300	450 at 1400°C / 3 hrs
Permanent Linear Change	%			
Fired at 1350 °C/3 hrs	max.	± 1.00	± 1.00	±1.00 at 1400°C/3 hrs
Reversible Thermal Expansion at 1000 °C	%	0.55	0.55	0.65
Refractoriness (Orton/ °C)	min.	20 / 1564	16 / 1450	31 / 1683
Recommended Water Addition (By wt.)	%	11 - 13	11 - 13	10 - 12
Chemical Analysis	%			
Al ₂ O ₃	min.	45.0	45.0	70.0
Fe ₂ O ₃	max.	4.00	4.00	5.00

Shelf Life : 9 months from the date of manufacture

Packing : In 50 Kg LDPE lined HDPE bags

Note : Water requirements indicated are based on laboratory test conditions.

Actual water requirement may vary subject to site conditions.

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CONVENTIONAL DENSE CASTABLES (Silicon Carbide Based)



CUMICRETE

CHARACTERISTICS	UNIT	CUMICRETE CS 280/3	CUMICRETE CS 11Li	CUMICRETE CS 11LiS
Maximum Service Temperature	°C	1450	1500	1500
Maximum Grain Size	mm.	5	5	5
Bulk Density Dried at 110°C/24 hrs.	gm/cc,min	2.00	2.30	2.00
Cold Crushing Strength	Kg/cm ²			
Dried at 110°C/24 hrs	min.	200	300	200
Fired at 1000°C/3 hrs	min.	150	300	150
Fired at 1350°C/3 hrs	min.	175 at 1450°C	175	175
Permanent Linear Change	%			
Fired at 1000°C/3 hrs	max.	± 0.30	± 0.30	± 0.30
Fired at 1350°C/3 hrs	max.	± 3.0 at 1450°C/ 3 hrs	± 3.0	± 3.0
Recommended Water Addition (By wt.)	%	13 - 15	9 - 12	12 - 15
Chemical Analysis	%			
Al ₂ O ₃	min.	15.0	10.0	15.0
SiC	min.	60.0	76.0	60.0
Fe ₂ O ₃	max.	1.00	0.50	1.00

Shelf Life : 9 months from the date of manufacture

Packing : In 50 Kg LDPE lined HDPE bags

Note : Water requirements indicated are based on laboratory test conditions.

Actual water requirement may vary subject to site conditions.

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