

Magnesia Carbon Refractories

Product	MgO in DBM	Fixed C	Apparent Porosity	Coked AP at	Bulk Density	Cold Crushing	MOR at room	MOR at 1400°C	Application area
	%	%	%	%	gm/cm ³	kg/cm ²	kg/cm ²	kg/cm ²	
MCL MAGCARB-SL10	97.5	8.0	5.0	12.0	3.00	500	125	110	EBT/EOF, LD Converter
MCL MAGCARB-SL15	97.5	13.0	6.0	13.0	2.98	500	125	110	
MCL MAGCARB-HS10	97.5	8.0	5.0	12.0	3.00	500	125	110	
MCL MAGCARB-HS15	97.5	13.0	6.0	13.0	2.98	500	125	110	
MCL MAGCARB-HS20	97.5	18.0	6.0	14.0	2.95	450	110	90	
MCL MAGCARB- R5	97.0	4.0	4.0	11.0	3.05	450	125	90	LRF, VD, VOD slag zone
MCL MAGCARB- R5(S)	97.5	4.0	3.0	10.0	3.05	500	150	100	
MCL MAGCARB- R10	97.0	8.0	5.0	12.0	3.00	450	125	90	
MCL MAGCARB- R10(S)	97.5	8.0	4.0	11.0	3.00	500	150	100	
MCL MAGCARB -R15	97.0	13.0	5.0	13.0	2.95	400	100	90	
MCL MAGCARB- R15(S)	97.5	13.0	5.0	12.0	2.95	450	125	100	
MCL MAGCARB- SSL5	96.0	4.0	5.0	13.0	3.00	450	-	-	LRF,VD,VOD metal zone and bottom
MCL MAGCARB -SSL10	96.0	8.0	5.0	13.0	3.00	450	-	-	

Alumina Magnesia Carbon Refractories

Product	MgO in DBM	Fixed C	Al ₂ O ₃	Apparent Porosity	Bulk Density	Cold Crushing Strength	Application area
	%	%	%	%	gm/cm ³	kg/cm ²	
MCL AMC- 5	10.0	5.0	60.0	7.0	2.95	400	LRF,VD, VOD metal zone and bottom
MCL AMC- 10	10.0	8.0	60.0	8.0	2.92	400	
MCL MALC-10	15.0	7.0	70.0	8.0	2.98	400	LRF,VD,VOD bottom impact

The above figures are typical data as determined through Indian Standard Testing Methods and pertain to most commonly produced commercial sizes. These will be subject to reasonable variations for tailor made and non-standard sizes. Materials can also be manufactured to suit customer's specifications.

Special Basic Refractories

Product	MgO	ZrO ₂	SiO ₂	Al ₂ O ₃	Cr ₂ O ₃	Fe ₂ O ₃	Apparent Porosity	Bulk Density	Cold Crushing Strength	RUL ta	Application area
	%	%	%	%	%	%	%	gm/cm ³	kg/cm ²	°C	
DENSE MAGNESITE CHROME											
MCL MCLD-I	60.0	-	6.5	-	15.0	-	22.0	2.90	250	1600	General applications
MCL MCLD-II	65.0	-	5.0	-	12.0	-	20.0	2.90	300	1620	
MCL MCLD-III	70.0	-	4.0	-	10.0	-	20.0	2.95	350	1650	
DIRECT BONDED MAGNESITE CHROME											
MCL DBMC-I	65.0	-	3.0	-	12.0	-	18.0	2.95	350	1650	Non-ferrous industry
MCL DBMC-II	70.0	-	2.5	-	10.0	-	18.0	3.00	400	1700	
MCL DBMC-TZ	65.0	-	0.6	-	16.0	-	16.0	3.15	500	1700	
MCL DBMC-III	75.0	-	2.0	-	8.0	-	18.0	3.05	400	1700	Cement industry
DENSE CHROME MAGNESITE											
MCL CMN	30.0	-	-	-	18.0	-	25.0	2.85	200	1550	General applications
MCL CMN R	35.0	-	-	-	22.0	-	21.0	2.90	400	1550	Reheating Furnace Hearth
MCL DBCM-SPL	50.0	-	1.0	-	25.0	-	17.0	3.15	400	1700	Non-ferrous industry
MAGNESITE											
MCL MGN	85.0	-	6.5	-	-	-	22.0	2.85	350	1550	EAF, Hot Metal Mixer and general applications
MCL MGR	50.0	-	-	-	-	-	21.0	2.75	400	1650	Reheating Furnace Hearth
MCL MGD-I	90.0	-	5.0	-	-	-	20.0	2.90	400	1600	EAF, Hot Metal Mixer and general applications
MCL MGD-II	92.0	-	4.0	-	-	-	18.0	2.92	500	1620	
MCL MGD-III	94.0	-	3.0	-	-	-	18.0	2.92	500	1640	
LOW IRON MAGNESITE											
MCL MGIS-I	95.0	-	2.0	-	-	1.0	18.0	2.92	500	1650	Glass Industry and Special applications
MCL MGIS-II	96.0	-	1.5	-	-	0.8	18.0	2.95	500	1700	
MCL MGIS-III	97.0	-	1.0	-	-	0.6	18.0	2.98	600	1700	
MCL MGIS-IV	97.0	-	0.6	-	-	0.6	17.0	3.00	600	1700	
MAGNESITE ZIRCON BRICKS											
MCL MAG ZIR-TY-1	77.0	12.0	8.0	-	-	-	14.0	2.90	550	1650	Glass Tank Furnace Regenerator
MCL MAG ZIR-TY-2	74.0	12.0	10.0	-	-	-	16.0	2.90	500	1600	
MCL MAG ZIR-TY-3	92.0	4.0	0.5	-	-	-	17.0	2.85	500	1700	Lime Kiln
MAG-AL SPINEL BRICKS											
MCL MAG-AL-9010	90.0	-	1.0	7.0	-	0.8	17.0	3.00	600	1650	Lime Kiln and Cement Rotary Kiln
MCL MAG-AL-8515	86.0	-	1.5	12.0	-	0.8	18.0	2.95	600	1620	

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Basic Monolithics

Product	MgO	SiO ₂	Cr ₂ O ₃	Setting	Grading	Sintering temperature	Application temperature	Application area
	%	%	%		mm	°C	°C	
MCL MGM	85.0	-	-	Ceramic	0-0.5	1600		Mortar for general application
MCL MCM	55.0	-	12.0	Ceramic	0-1	1650		
MCL CMM	30.0	-	18.0	Ceramic	0-1	1650		
MCL PATCH MCX	75.0	-	8.0	Ceramic	0-2	800	1750	Masses for Induction Furnace
MCL RAM MCX	75.0	-	8.0	Ceramic	0-5	800	1750	
MCL RAM 84	84.0	-	-	Ceramic	0-5	1550	1750	Ramming Masses for EAF, EOF & LD
MCL FET 84	84.0	-	-	Ceramic	0-5	1500	1750	
MCL GUN 85	85.0	6.5	-	Chemical / Ceramic	0-4	1500	1750	
MCL RAM 86	86.0	-	-	Ceramic	0-5	1550	1750	
MCL RAM 90	90.0	5.0	-	Ceramic	0-5	1550	1750	
MCL RAM 95	95.0	2.5	-	Ceramic	0-5	1550	1750	
MCL GUN 88	88.0	-	-	Ceramic	0-3	1550	1750	Gunning Masses for EAF, EOF and LD Converter
MCL GUN 92	92.0	5.0	-	Ceramic	0-3	1550	1750	
MCL GUN 95	94.0	2.5	-	Ceramic	0-3	1550	1750	
MCL HOT PATCH MIX	88.0	2.0	-	Ceramic	0-4	1550	1750	Hot patching mass for LRF & BOF

The above figures are typical data as determined through Indian Standard Testing Methods. Materials can also be manufactured to suit customer's specifications.