



MONOCON

MONOLITHICS

Product Range



ISO 9001 : 2000 / FM 71747

DEDICATED TO CLEAN STEEL

ABOUT US

IFGL REFRACTORIES LTD., The flagship company of the SK Bajoria Group, has a distinct technological & business focus - Special Refractories for the Steel Industry. The SK Bajoria Group of companies, headquartered at Kolkata, India, has diverse business interests - Special Refractories, Re- Insurance and Industrial Risk Management.



Corporate Office: Midland House, Kolkata

The company has a large pool of well-trained Engineers and Application Specialists to offer Clients Total Solution in Refractory needs for Flow Control in Steel Teeming and Continuous Casting of Steel.

The Slide Gate Refractories Plant started in the year 1984, as a joint venture with Flogates Ltd., UK and as an exclusive Indian Licensee of Flocon Slide Gate Systems, developed by US Steel Corporation and patented worldwide by their wholly-owned subsidiary USS Engineers and Consultants Inc. This plant now manufactures Slide Gate Systems and Slide Gate Refractories with the latest Know-how from Krosaki Harima Corporation, Japan.

The Continuous Casting Refractories Plant is an Indo -Japanese venture in technical and financial collaboration with Krosaki Harima Corporation, Japan. The Production started in the year 1993. This plant manufactures Isostatically Pressed Continuous Casting Refractories and Isostatically Pressed Magnesia Carbon Taphole Sleeves.

PURGE PLUGS AND CAST REFRACTORIES

These products are manufactured, as per the know-how initially obtained from Flogates Ltd., UK and further developments made by company's R&D division. The manufacturing facilities are located at Kalunga, near Rourkela, in the state of Orissa. The company is very aggressive and focussed on the Global markets and has major markets in Europe, Scandinavia, South Africa, Middle-East, North America, Australia, New Zealand and Asia.

PRODUCTS

- Isostatically Pressed Concast Products.
- Isostatically Pressed Single Piece Taphole Sleeves for the BOF & EAF.
- Slide Gate Refractories & Mechanisms for the Ladle, Tundish & Furnace.
- Gas Purging Plugs and Associated Mechanism for the ladle.

The Company operates a Quality Management System which complies with the requirements of **BS EN ISO 9001-2000**.

MONOCON

GROUP OF COMPANIES

In September 2005, the company acquired 'MONOCON' Group of Companies with manufacturing facilities in UK, USA, Brazil, and China.



Tianjin Monocon Aluminium Refractories Co., Ltd., China



Monocon International Refractories Ltd., UK

PRODUCT RANGE FROM MONOCON GROUP

Monolithics for EAF, Ladle & Tundish

Tundish Spraying Mass

and required machine for Tundish Spraying

Monolithics Lances for

- 1) Desulphurization in iron making
- 2) Secondary steelmaking applications

Refractory Dart

and required machine for Slag Control in the BOF

Robotics for

EAF, Ladle & Tundish lining maintenance

High Performance Castable , Ramming Mix & Gunning Compounds

With many years experience in the critical areas of refractories application , the IFGL group of companies have developed a number of monolithic products for a wide range of application across different industries . Classified into various categories, the monolithic products are used in various applications areas in all core sector industria furnaces operating with medium to high temperature.

The Product Range includes :

- Variety of Dense, Low Cement, Ultra-Low Cement & Self Flow Castable in 50 to 99% Al₂O₃, Spinel and Basic quality including a series of insulating castables.
- Wide range of Pre-Cast Shapes with above-mentioned castable for critical application areas
- Basic Gunning & Ramming Mass for BOF, EAF, Ladle and other areas
- Mortar and Fixing material for use with Slide Gate Refractories & Purging Refractories

Facilitators

- Access to high purity aggregates & binders
- State of the art plant & machineries
- Strong R & D infrastructure

Product Features

- High degree of volume stability
- Good resistance to thermal shock
- Dense matrix
- Excellent resistance to abrasion

	GENERAL PURPOSE DENSE CASTABLE			
Brand Name	MONOCAST 1400		MONOCAST 1450	
Nature of Bond	Hydraulic		Hydraulic	
Shelf Life	9 months		9 months	
Packaging	25 Kg / 50 kg bags		25 Kg / 50 kg bags	
Max Service Temperature	1400°C		1450°C	
Maximum Grain Size	5 mm / 6 mm		5 mm / 6 mm	
Approx. water for casting in %	10 - 12		10 - 12	
Chemical Analysis %	Typical Data	Specification	Typical Data	Specification
Al ₂ O ₃	45.42	45 min.	71.27	70 min.
SiO ₂	40.00		12.2	
Fe ₂ O ₃	3.24	4.0 max.	3.93	5 max.
TiO ₂	5.10		5.81	
CaO	5.73		6.28	
Na ₂ O + K ₂ O + LOI	0.51		0.51	
Physical Properties	Typical Data	Specification	Typical Data	Specification
B D gms/cc (110°C/24 hrs)	2.13	2.10 min	2.55	2.5 min.
CCS in Kg/cm²				
after drying at 110°C/24 hrs	290	250 min.	383	350 min.
after heating at 800°C/3 hrs	215		295	
after heating at 1100°C/3 hrs	165		233	
after heating at 1350°C/3 hrs	320	250 min.	518 (1400°C)	450 min.
MOR in Kg/cm²				
after drying at 110°C/24 hrs	57		57	
after heating at 1350°C/3 hrs	56		87 (1400°C)	
P L C in %				
after heating at 1400°C/3 hrs	- 0.85	± 1.0 max.	- 0.21	± 1.0 max.
Thermal Conductivity in W/MK				
at 400°C HF	0.74		0.92	
at 600°C HF	0.76		0.93	
at 800°C HF	0.84		0.96	
Recommended Area of Application	In boiler , chimney , foundry ladle , annealing furnace , heat-treatment furnaces and various general purpose application.			

Tailor made products specific to customer requirements are manufactured by us.

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HIGH STRENGTH DENSE CASTABLE

Brand Name	MONOCAST 1500		MONOCAST 1600		MONOCAST 1800		MONOCAST 1800(S)		MONOCAST 1850	
Nature of Bond	Hydraulic		Hydraulic		Hydraulic		Hydraulic		Hydraulic	
Shelf Life	9 months		9 months		9 months		9 months		9 months	
Packaging	25 Kg / 50 kg bags		25 Kg / 50 kg bags		25 Kg / 50 kg bags		25 Kg / 50 kg bags		25 Kg / 50 kg bags	
Max Service Temperature	1500°C		1600°C		1700°C		1750°C		1850°C	
Maximum Grain Size	5 mm / 6 mm		5 mm / 6 mm		5 mm / 6 mm		5 mm / 6 mm		5 mm / 6 mm	
Approx. water for casting in %	9 - 10		9 - 10		8 - 9		8 - 9		8 - 9	
Chemical Analysis %	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
Al ₂ O ₃	50.96	50 min	61.11	60 min.	89.61	90±2	90.66	90 min.	95.3	94 min.
SiO ₂	41.76		31.17		1.75		2.37		0.28	
Fe ₂ O ₃	1.05	1.5 max	0.92	1.0max.	0.92	1.50 max.	0.80	1.0 max.	0.25	0.30 max.
TiO ₂	1.16		1.57		1.47		1.30			
CaO	4.65		4.81		5.80		4.38		3.74	
Na ₂ O + K ₂ O + LOI	0.42		0.42		0.45		0.49		0.43	
Physical Properties	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
B D gms/cc (110°C/24 hrs)	2.16	2.1 min	2.25	2.2 min.	2.78	2.75 min.	2.85	2.80 min.	2.93	2.90 min.
CCS in Kg/cm²										
after drying at 110°C/24 hrs	405	350 min	428	375 min.	636	600 min.	672	650 min.	683	650 min.
after heating at 800°C/3 hrs	295		318		410		416		476	
after heating at 1100°C/3 hrs	205		222		350		352		319	
after heating at 1550°C/3 hrs	552 (1500°C)		517	450 min.	638		642		670	
MOR in Kg/cm²										
after drying at 110°C/24 hrs	65		72		95		104		106	
after heating at 1550°C/3 hrs	96 (1500°C)		98		104		109		112	
P L C in %										
after heating at 1500°C/3 hrs	- 0.85	± 1.0 max.	- 1.00	± 1.2 max.	- 0.87	± 1.0 max.	- 0.71	± 1.0 max.	- 0.85	± 1.0 max.
Thermal Conductivity in W/MK										
at 400°C HF	0.80		0.86		1.2		1.24		1.36	
at 600°C HF	0.82		0.92		1.21		1.27		1.39	
at 800°C HF	0.84		0.95		1.35		1.39		1.55	
Recommended Area of Application	Repair/ free board area of steel ladle, ABC/ DSC section of DRI unit, Pelletising Furnace, Incinerators, Skid Pipes, Soaking Pit Cover, Meal Chute/ Feed Pipe/ Roof of Pre-Calciner unit of Cement Rotary Kiln, Hot Metal Mixer, Aluminium Melting Furnace									

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LOW CEMENT CASTABLE

Brand Name	MONOCAST LC 1500		MONOCAST LC 1600		MONOCAST LC 1650		MONOCAST LC 1700		MONOCAST LC 1800	
Nature of Bond	Hydraulic		Hydraulic		Hydraulic		Hydraulic		Hydraulic	
Shelf Life	6 months		6 months		6 months		6 months		6 months	
Packaging	25 Kg / 50 kg bags		25 Kg / 50 kg bags		25 Kg / 50 kg bags		25 Kg / 50 kg bags		25 Kg / 50 kg bags	
Max Service Temperature	1550°C		1600°C		1650°C		1700°C		1800°C	
Maximum Grain Size	5 mm / 6 mm		5 mm / 6 mm		5 mm / 6 mm		5 mm / 6 mm		5 mm / 6 mm	
Approx. water for casting in %	5.0 - 6.0		5.0 - 6.0		5.0 - 6.0		4.5 - 5.5		4.0 - 5.0	
Chemical Analysis %	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
Al ₂ O ₃	46.24	45 min.	60.76	60 min.	70.84	70 min.	81.04	80 min.	90.88	90 min.
SiO ₂	49.02		35.02		24.19		12.77		5.48	
Fe ₂ O ₃	0.82	1.0 max.	0.86	1.0 max.	1.16	1.50 max.	1.46	1.8 max.	0.72	0.80 max.
TiO ₂	1.86		1.62		2.18		3.10		0.98	
CaO	1.42		1.40		1.40		1.41		1.52	
Na ₂ O + K ₂ O + LOI	0.64		0.34		0.23		0.22		0.42	
Physical Properties	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
B D gms/cc (110°C/24 hrs)	2.34	2.3 min.	2.64	2.6 min.	2.75	2.7 min.	2.92	2.90 min.	3.02	3.00 min.
CCS in Kg/cm²										
after drying at 110°C/24 hrs	787	700 min.	780	750 min.	815	750 min.	850	800 min.	1023	950 min.
after heating at 800°C/3 hrs	883	800 min.	890	800 min.	886	800 min.	967	900 min.	1120	1000 min.
after heating at 1100°C/3 hrs	972	900 min.	946	900 min.	962	900 min.	1080	1000 min.	1170	1100 min.
after heating at 1500°C/3 hrs	1110	1000 min.	1130	1000 min.	1156	1000 min.	1286	1200 min.	1296	1200 min.
MOR in Kg/cm²										
after drying at 110°C/24 hrs	121		128		126		140		146	
after heating at 800°C/3 hrs	144		145		150		158		166	
after heating at 1100°C/3 hrs	158		164		174		176		178	
after heating at 1500°C/3 hrs	188		190		210		232		240	
PLC in %										
after heating at 1500°C/3 hrs	+ 0.42	± 1.0 max.	- 0.47	± 1.0 max.	+ 0.52	± 1.0 max.	+ 0.32	± 0.80 max.	+ 0.11	± 0.50 max.
Thermal Conductivity in W/MK										
at 400°C HF	0.82		0.92		1.13		1.56		2.02	
at 600°C HF	0.98		1.06		1.19		1.64		2.18	
at 800°C HF	1.11		1.21		1.21		1.75		2.24	
Recommended Area of Application	Tundish Permanent Lining, DRI Kiln Lining, Tip Casting, Inlet Cone & Burner Pipe of Cement Rotary Kiln, Cement Kiln Cooler Section, Lower Side Walls of Aluminium Melting & Holding Furnace, Incinerator Lining.									

ALSO AVAILABLE IN ULTRA LOW CEMENT, SELF FLOW & GUNNING VARIETIES.
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BASIC DENSE CASTABLE AND RAMMING MASS

Brand Name	MONOMAG 80S		MONOMAG 80C		MONOMAG CB95		MONORAM M84		MONORAM M95		
Nature of Bond	Phosphate		Phosphate		Chemical		Chemical		Chemical		
Shelf Life	6 months		6 months		6 months		6 months		6 months		
Packaging	25 Kg / 50 kg bags		25 Kg / 50 kg bags		25 Kg / 50 kg bags		25 Kg / 50 kg bags		25 Kg / 50 kg bags		
Max Service Temperature	1700°C		1700°C		1800°C		1700°C		1750°C		
Maximum Grain Size	3 mm		5 mm		5 mm		5 mm		5 mm		
Approx. water for casting in %	7.0 - 9.0		7.0 - 9.0		6.0 - 8.0		8.0 - 10.0		6.0 - 8.0		
Chemical Analysis %	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	
MgO	82.50	80 min.	82.50	80 min.	95.50	95 min.	84.30	83 min.	95.50	95 min.	
Fe ₂ O ₃	0.20		0.20		0.10		2.35		0.30	0.50 max.	
SiO ₂	3.00		3.00		0.30		8.42		1.08		
P ₂ O ₅	1.20		1.20								
Al ₂ O ₃	10.50		10.50		0.50		1.30		0.16		
CaO	2.30		2.30		0.60		1.83		0.42		
Physical Properties	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	
B D gms/cc (110°C/24 hrs)	2.75	2.70 min.	2.80	2.75 min.	2.80	2.75 min.	2.65	2.60 min.	2.92	2.85 min.	
CCS in Kg/cm²											
after drying at 110°C/24 hrs	500	400 min.	500	400 min.	500	400 min.	450	400 min.	590	450 min.	
after heating at 1100°C/3 hrs											
after heating at 1600°C/3 hrs	200		200		200		330(1550°C)		340(1550°C)		
MOR in Kg/cm²											
after drying at 110°C/24 hrs											
after heating at 1100°C/3 hrs											
after heating at 1600°C/3 hrs											
P L C in %											
after heating at 1550°C/3 hrs	- 1.00	± 1.50 max.	- 1.00	± 1.50 max.	- 0.10	± 0.50 max.	- 0.80	± 1.20max.	- 0.60	± 1.00 max.	
Thermal Conductivity in W/MK											
at 400°C HF											
at 600°C HF											
at 800°C HF											
Recommended Area of Application	Ladle Repair & Degasser Units.						EAF Cold Repair , LD Converter tap hole repair , LD Converter Top Tightening , LD Converter Gunning & Hot Patching , Patching Mass in LF with VD Operation , Ladle Back Fil , Protective coating over Snorkel castable.				

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	SELF FLOW CASTABLE				HIGH ALUMINA SPINEL CASTABLES					
Brand Name	MONOFLOW SF 98TA		MONOFLOW SF 98SPI		MONOSPIN VC1750		MONOSPIN VC1850		MONOSPIN VC1850 MG	
Nature of Bond	Hydraulic		Hydraulic		Hydraulic		Hydraulic		Hydraulic	
Shelf Life	6 months		6 months		6 months		6 months		6 months	
Packaging	25 Kg / 50 Kg bags		25 Kg / 50 Kg bags		25 Kg / 50 Kg bags		25 Kg / 50 Kg bags		25 Kg / 50 Kg bags	
Max Service Temperature	1850°C		1850°C		1750°C		1850°C		1850°C	
Maximum Grain Size	6 mm		6 mm		10 mm		10 mm		10 mm	
Approx. water for casting in %	5.0 - 6.0		5.0 - 6.0		5.0 - 7.0		5.0 - 6.0		5.0 - 6.0	
Chemical Analysis %	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
Al ₂ O ₃	98.00	97 min.	93.30	92 min.	82.50	82 min.	92.60	92 min.	92.60	92 min.
SiO ₂	0.50		0.50		9.10		0.70		0.70	
Fe ₂ O ₃	0.10	0.15 max.	0.10	0.15 max.	1.00		0.10		0.10	
TiO ₂	0.10				1.50		0.10		0.10	
CaO	1.40		1.40		1.40	1.80 max.	1.40	2.00 max.	1.40	2.00 max.
Na ₂ O + K ₂ O + LOI	0.50		0.50		0.50		0.50		0.50	
MgO			4.50		4.50	4.00 min.	5.00	4.50 min.	5.00	4.50 min.
Physical Properties	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
B D gms/cc (110°C/24 hrs)	3.05	3.00 min.	3.10	3.00 min.	2.95	2.90 min.	3.03	2.95 min.	3.03	2.95 min.
Flow properties after mixing %	100	80 min.	100	80 min.						
CCS in Kg/cm²										
after drying at 110°C/24 hrs	900	800 min.	900	800 min.	600	500 min.	650	600 min.	650	600 min.
after heating at 1100°C/3 hrs	944		920		650		700		700	
after heating at 1500°C/3 hrs	1356		1272							
after heating at 1600°C/3 hrs					750		1150		1150	
MOR in Kg/cm²										
after drying at 110°C/24 hrs	110		140		150		160		160	
after heating at 1100°C/3 hrs	166		176		160		170		170	
after heating at 1550°C/3 hrs	228		232							
after heating at 1600°C/3 hrs					190		240		240	
P L C in %										
after heating at 1600°C/3 hrs	+ 0.10	± 0.50 max.	- 0.40	± 0.50 max.	+ 0.80	± 1.50 max.	- 0.40	± 1.00 max.	- 0.40	± 1.00 max.
Thermal Conductivity in W/MK										
at 400°C HF										
at 600°C HF	2.10		2.10							
at 800°C HF	2.30		2.30							
Recommended Area of Application	Precast-Prefired shapes as Steel Ladle Seating Blocks & Housing Blocks, EAF Delta & Launder, RH Degasser Units.				EAF Delta in - situ casting, RH Degasser units, EAF Launder, Steel Ladle Working Lining & impact area, Tundish Dams & Weirs.					

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	TABULAR ALUMINA CASTABLE				GUNNING MIX					
Brand Name	MONOTAB 96		MONOTAB 98		MONOGUN APS80		MONOGUN BG99-002		MONOGUN BG20-002	
Nature of Bond	Hydraulic		Hydraulic		Silicate		Phosphate		Silico - Phosphate	
Shelf Life	6 months		6 months		6 months		6 months		6 months	
Packaging	25 Kg / 50 Kg bags		25 Kg / 50 Kg bags		25 Kg / 50 Kg bags		25 Kg / 50 Kg bags		25 Kg / 50 Kg bags	
Max Service Temperature	1800°C		1850°C		1700°C		1700°C		1700°C	
Maximum Grain Size	5 mm		5 mm		3 mm		3 mm		3 mm	
Approx. water for casting in %	5.0 - 6.0		5.0 - 6.0							
Chemical Analysis %	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
Al ₂ O ₃	96.76	96 min.	98.82	98 min.	0.80		0.80		1.10	
MgO					84.50	83 min.	80.50	80 min.	79.50	79 min.
SiO ₂	0.12	0.20 max.	0.10	0.20 max.	8.70		6.40		6.50	
Fe ₂ O ₃	0.11	0.20 max.	0.08	0.20 max.	1.20		1.10		1.05	
TiO ₂	0.08	0.10 max.	0.04							
CaO	2.70	2.80 max.	0.70	1.00 max.	1.20		4.70		5.70	
P ₂ O ₅							1.50		0.70	
Na ₂ O + K ₂ O					1.20		1.10		1.10	
LOI	0.23		0.26							
Physical Properties	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
B D gms/cc (110°C/24 hrs)	2.85	2.80 min.	3.14	3.10 min.	2.32	2.30 min.	2.20	2.15 min.	2.25	2.20 min.
CCS in Kg/cm²										
after drying at 110°C/24 hrs	632	450 min.	720	600 min.	9	5 min.	9	5 min.	9	5 min.
after heating at 1550°C/3 hrs	834	750 min.	852	800 min.						
after heating at 1600°C/3 hrs					150		250		250	
MOR in Kg/cm²										
after drying at 110°C/24 hrs	82		110							
after heating at 800°C/3 hrs	62									
after heating at 1100°C/3 hrs	40		60							
after heating at 1500°C/3 hrs	92		134							
P L C in %										
after heating at 1550°C/3 hrs	+ 0.54	± 0.75 max.	- 0.38	± 0.75 max.						
after heating at 1600°C/3 hrs					- 5.50	- 8.00 max	- 5.50	- 8.00 max	- 5.70	- 8.00 max
Thermal Conductivity in W/MK										
at 400°C HF	1.42		1.52							
at 600°C HF	1.44		1.55							
at 800°C HF	1.48		1.60							
Recommended Area of Application	Critical areas in Fertiliser , Petroleum Refinery , Carbon Black Industry & FCC Units.				EAF Slagline Repair , LD Converter Lining Repair , RH Degasser Unit Repair & other general purpose gunning application.					

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INSULATION CASTABLE										
Brand Name	MONOCAST INSUL 7		MONOCAST INSUL 11		MONOCAST INSUL 13		MONOCAST INSUL 15		MONOCAST INSUL 96	
Shelf Life	9 months		9 months		9 months		9 months		9 months	
Packaging	25 Kg bags		25 Kg bags		25 Kg bags		25 Kg bags		25 Kg bags	
Max Service Temperature	1100°C		1300°C		1350°C		1350°C		1800°C	
Maximum Grain Size	5 mm / 6 mm		5 mm / 6 mm		5 mm / 6 mm		5 mm / 6 mm		5 mm / 6 mm	
Approx. water for casting in %	65 - 75		35 - 40		35 - 40		30 - 35		13 - 18	
Chemical Analysis %	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
Al ₂ O ₃	27.55		39.42		39.82		43.41		94.46	96 min.
SiO ₂	31.76		42.32		40.72		36.60		0.22	0.20 max.
Fe ₂ O ₃	4.33	5 max.	3.12	3.5 max.	3.37	3.50 max.	2.99	3.2 max.	0.18	0.20 max.
TiO ₂	3.91		3.60		2.90		3.02		Trace	
CaO	28.36		10.90		12.50		13.54		4.84	5.00 max.
Na ₂ O + K ₂ O	0.78		0.64		0.69		0.44		0.10	0.40 max.
Other Oxides / LOI	3.22		Trace		Trace		Trace		0.20	
Physical Properties	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification	Typical Data	Specification
B D gms/cc (110°C/24 hrs)	0.78	0.85 max.	1.19	1.25 max.	1.41	1.45 max.	1.55	1.60 max.	1.62	1.65 min.
CCS in Kg/cm²										
after drying at 110°C/24 hrs	15	10 min.	47	40 min.	73	60 min.	124	100 min.	78	70 min.
after heating at 800°C/3 hrs	7	4 min.	38	30 min.	60	50 min.	76	60 min.	72	60 min.
after heating at 1100°C/3 hrs	8	6 min.	36	30 min.	45	40 min.	72	60 min.	48	
after heating at 1300°C/3 hrs			68	60 min.	72	60 min.	96	85 min.	72 (1550°C)	
MOR in Kg/cm²										
after drying at 110°C/24 hrs	4		10		18		20		27	
after heating at 800°C/3 hrs	2		8		10		15		16	
after heating at 1100°C/3 hrs	3		8		8		12		14	
after heating at 1300°C/3 hrs			16		17		20		20 (1550°C)	
P L C in %										
after heating at 1100°C/3 hrs	- 1.02	± 1.20 max.	- 0.22	± 0.30 max.	- 0.23	± 0.30 max.	- 0.24	± 0.30 max.	- 0.10	
Thermal Conductivity in K Cal										
at 500°C HF	0.15	0.18 max.	0.26	0.31 max.	0.29	0.33 max.	0.42	0.43 max.	0.98	
at 800°C HF	0.16		0.31		0.31		0.44		1.07	
Recommended Area of Application	Fired heaters in refineries , ABC of DRI unit , Catalytic Reformer ring , Carbon Black Industry , Duct lining in refineries , H2 Furnace back up lining									

Tailor made products specific to customer requirements are manufactured by us.

The typical data shown above are to be understood as average test values from the random samples from different manufacturing lot and hence subject to normal variation depending on the characteristics of raw material used during manufacture.



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