ORYVIA

REFRACTORIES

A Division of Oryvia Global LLP

Oryvia Global LLP

Product
Catelogue





Oryvia Global

About **US**

Oryvia Refractories - A division of Oryvia Global LLP, is an Indian manufacturer and exporter of refractory materials for high-temperature industrial applications. Based in Wankaner, Gujarat, India. our manufacturing operations span **3 production units**, backed by **30 years of experience.** Our portfolio includes refractory bricks, monolithic refractories and furnace lining materials, with a track record of **700+ completed projects** and exports to more than **20 countries.**

We bring together manufacturing expertise, a commitment to consistent quality and an understanding of demanding industrial environments. Guided by integrity, precision and technical reliability, we focus on delivering materials suited to each customer's application. From initial enquiry to delivery, our approach centres on clear communication, dependable supply and lasting business relationships.

Vision

To be the most trusted global partner for high-performance Indian refractory solutions by 2030.

Mission

Deliver ISO-certified refractories with superior quality, transparent pricing, fast service, and reliable on-time delivery—making global sourcing simple and worry-free.

Experience

Over **30+ years** of supplier expertise ensuring reliable industrial solutions.

Industry serving

Supporting diverse industrial sectors with tailored solutions in **12+ industries.**



Units

We deliver quality products backed with **3+ manufacturing units.**

Presence

Connected with partners supplying products across more than **20+ global markets**.

OUR PRODUCTS



REFRACTORY **FIRE BRICKS**



CERAMIC **FIBERS**



CALCIUM SILICATE BOARDS

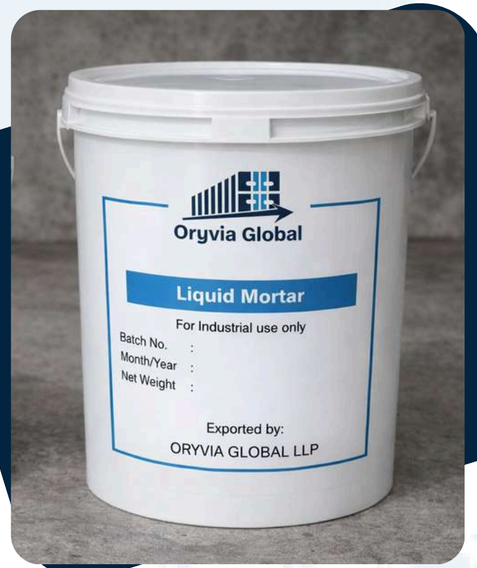


REFRACTORY **MORTAR**

OUR PRODUCTS



MONOLITHICS/ **CASTABLES**



REFRACTORY **LIQUID MORTAR**



Refractory/ Fire Bricks

Refractory Bricks are manufactured using **high-grade raw materials** sourced from **trusted and reliable vendors**, ensuring consistent quality and performance. These bricks are engineered to deliver **excellent thermal resistance, structural strength**, and **long service life** under extreme temperature conditions.

Our **Refractory Fire Bricks** are widely used in the construction of **furnaces, kilns, fireplaces, and fireboxes.** making them suitable for both **industrial applications** and **commercial buildings** where high heat resistance is critical.

To address diverse operational requirements, we offer refractory bricks in **multiple grades, versions, and sizes**, with the capability to provide **customized solutions based on specific client specifications**, all at competitive market prices.

Refractory/ Fire Bricks: Product List



Fire Clay Bricks

Type : 25-30% Alumina Bricks
Size : Standard, Tapper, Arch, Slabs, Blocks, Special/Customized size & shape.



High Alumina Bricks

Type : 30-80% Alumina Bricks
Size : Standard, Tapper, Arch, Slabs, Blocks, Special/Customized size & shape.



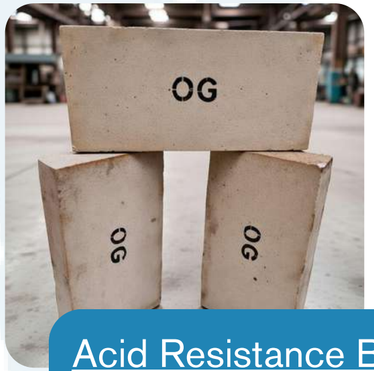
SK Series Bricks

Type : 30-80% Alumina Bricks
Size : Standard, Tapper, Arch, Slabs, Blocks, Special/Customized size & shape.



Insulating Bricks

Type : 25-60% Alumina
Size : Standard, Tapper, Arch, Slabs, Blocks,Tiles



Acid Resistance Bricks

Type : Class I, II & III
Size : Standard, Tapper, Arch, Slabs, Blocks,



Magnesia Bricks

Type : MgO-80 & MgO-92
Size : Standard, Tapper



High Alumina Bricks

Oryvia Refractories offers a comprehensive range of **25% to 80% Alumina refractory bricks**, produced using quality-controlled manufacturing processes.

These bricks are available in a wide variety of **standard and engineered shapes**, including standard **bricks, tapers, blocks, slabs, tiles, arch bricks, cupola bricks**, as well as **customized sizes and shapes** to meet specific application requirements.

Technical Specifications: High Alumina Refractory Bricks

	Chemical Analysis (%)		Apparent Porosity (%)	Bulk Density (g/cm3)	CCS (kg/cm2)	PLC (%)	RUL (Ta0C)
	Al2O3	Fe2O3		Min.			
30% Alumina Bricks	28-30 %	3.4-4.5 %	18-22%	2.05	250-300	-0.8 to 0.3 at 13500C/2h	1350-1400
35% Alumina Bricks	34-35 %	3.4-4.2 %	22-23%	2.1	300-350	-0.8 to 0.3 at 14000C/2h	1350-1400
40% Alumina Bricks	38-40 %	3.4-4.2 %	21-22%	2.15	350-550	-0.8 to 0.3 at 14000C/2h	1350-1400
45% Alumina Bricks	43-45 %	3.4-4.2 %	20-21%	2.23	400-600	-0.8 to 0.3 at 14000C/2h	1360-1410
50% Alumina Bricks	48-50 %	3.0-3.5 %	18-19%	2.32	450-650	-0.8 to 0.4 at 14500C/2h	1400-1450
55% Alumina Bricks	53-55 %	2.5-3.0 %	18-19%	2.42	450-650	-0.5 to 1.0 at 14500C/2h	1400-1450
60% Alumina Bricks	58-60 %	2.5-3.0 %	16-17%	2.51	550-800	-0.4 to 2.0 at 15500C/2h	1450-1500
65% Alumina Bricks	63-65 %	2.5-3.0 %	15-16%	2.55	600-850	-0.4 to 2.0 at 15500C/2h	1500-1550
70% Alumina Bricks	68-70 %	2.0-2.5 %	13-15%	2.62	600-900	0.3 to 2.5 at 16000C/2h	1550-1600
80% Alumina Bricks	78-82 %	1.5-2.0 %	13-15%	2.7	950-1000	0.1 to 0.2 at 16500C/2h	1650-1700



SK-Series Fire Bricks

SK-Series refractory bricks are available in grades ranging from **SK-30 to SK-40**, covering a broad alumina composition from approximately **25% up to 82%**.

These products are supplied in substantial volumes across multiple international markets and are designed to meet diverse industrial requirements.

The range includes a wide selection of **regular and engineered shapes, such as Standard bricks, T-Shapes, Y-Shapes, Plates, Blocks, Tiles,** along with **special and customized shapes** as per application needs.

Technical Specification : SK Series Fire Bricks

	SK -30	SK-32	SK-34	SK-35	SK-36	SK-37	SK-38	SK-40
Al2O3， ≥	30%	32%	38%	45%	55%	65%	70%	82%
Fe2O3， ≤	4.20%	4.20%	4.20%	4.00%	3.20%	2.50%	2.50%	2%
Refractoriness，SK	30	32	34	35	36	37	38	40
Refractoriness	1670℃	1710℃	1750℃	1770℃	1790℃	1820℃	1850℃	1920℃
Temp. under load,0.2Mpa	1250	1350	1370	1420	1450	1480	1530	1600
Apparent Porosity， ≤	22-25%	21-23%	20-22%	19-20%	18-19%	16-18%	15-17%	15-17%
Bulk density，g/cm3	1.9-2.0	1.95-2.1	2.1-2.2	2.15-2.22	2.25-2.40	2.3-2.5	2.4-2.6	2.5-2.7
Cold crushing strength, Mpa, ≥	20	25	30	40	45	50	60	70



Insulating Bricks

CFI, HFI, and other **Insulating fire bricks** are produced with a strong focus on **consistent quality and thermal performance**.

Continuous process development and **focused R&D** efforts have led to significant improvements in insulation efficiency and product reliability.

These lightweight insulating fire bricks are characterized by **low density, good structural strength**, and **low thermal conductivity**, making them suitable for effective heat insulation.

They are widely used in **furnaces, boilers, and other high-temperature industrial applications** where thermal efficiency and energy conservation are critical.

Technical Specification : Insulating Bricks

		20- Grade	23- Grade	25- Grade	26- Grade	28- Grade
Service Temperature		1230℃	1250℃	1350℃	1430℃	1510℃
Al2O3， ≥		38%	45%	50%	55%	60%
Fe2O3， ≤		1%	1%	1%	1%	1%
Bulk Density(gm/cc) max.		0.64	0.77	0.615	0.86	0.96
Cold Crushing Strength, Mpa		1.2	1.8	2.25	2.2	2.2
Pyrometric Cone [ASTM] No.(min) CCSMpa		27	27	29	32	31
PLC at Service Temperature (˚C/3 hrs,max)		0.5	0.5	0.5	0.5	0.5
Thermal Conductivity (kcal/m/hr/˚C max)	200˚C	0.12	0.16	-	-	-
	400˚C	0.14	0.18	0.18	0.27	0.32
	600˚C	0.16	0.2	0.19	0.3	0.34
	800˚C	0.2	0.23	0.21	0.33	0.35
	1000˚C	0.24	0.26	0.23	0.36	0.38



Acid Proof Bricks

Acid Proof Bricks are designed to offer **high resistance** to concentrated acids, along with **low water absorption** and **strong mechanical strength**.

These bricks are produced using **fine-ground raw materials**, carefully formulated to achieve high density and structural integrity, and are fired at temperatures exceeding **1200°C.**

The resulting products provide excellent resistance to a wide range of **corrosive liquids and gases**, with known limitations against **hydrofluoric acids and strong hot alkalis.**

Such properties make them suitable for use in **chemical plants, processing units, and corrosion-prone industrial environments**.

Technical Specification : Acid Proof Bricks

PARAMETERS	CLASS-I	CLASS-II
Bulk Density (g/cm3)	>2.3	>2.28
Cold Crushing Strength (Kg/cm2)	> 900	> 700
Flexural Strength (Kg/cm2)	> 150	> 100
Thermal Conductivity (w/m*K)	≤0.65	≤0.45
SiO2	≥65 %	≥65 %
Water Absorption (%)	<2	<4
Acid Proof Rate (%)	≤98	≤97
Service Temperature (°C)	≤1200	≤1000



Magnesia Bricks

Magnesia Bricks are alkaline refractory materials characterized by a **high magnesium oxide (MgO)** content, with periclase as the primary crystalline phase.

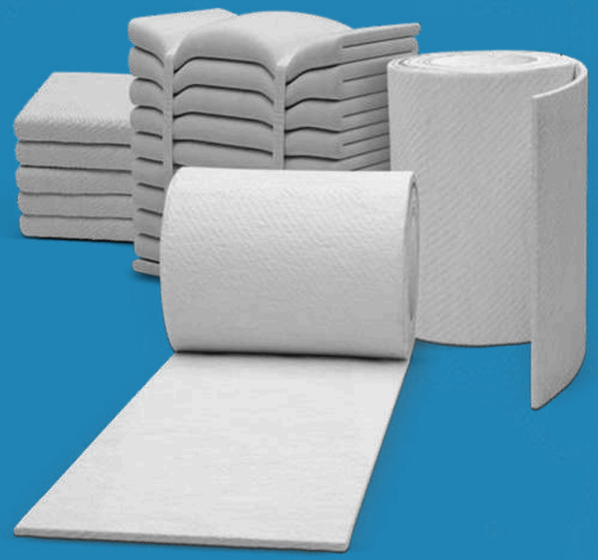
These bricks are broadly classified into **Burnt Magnesia Bricks** and **Chemically Bonded Magnesia Bricks**, each designed for specific operating conditions.

They exhibit excellent **high-temperature mechanical strength** and **good volume stability**, making them suitable for demanding thermal environments.

Magnesia Bricks are designed to perform at service temperatures up to approximately **1750°C** and are widely used in **Electric Arc Furnaces (EAF), rotary kilns, glass furnaces**, and other high-temperature industrial applications.

Technical Specification : Magnesia Bricks

PARAMETERS	MGO-90	MGO-85
MgO	≥90 %	≥85 %
CaO	≤3 %	≤3 %
Refractoriness Under Load 0.2MPa	≥1600 ℃	≥1500 ℃
Apparent Porosity	≤18 %	≤20 %
Cold Crushing Strength MPa	≥58.8	≥49
Linear Change On Reheating (1650℃, 2h)	≤0.5	≤0.6



Ceramic Fibers

Ceramic Fibers are offered as **fine and lightweight** insulation materials made mainly from **alumina and silica.**

They are suitable for **heat, electrical, and sound insulation** in **high-temperature** applications.

These fibers may be **crystalline or amorphous** and provide **reliable heat resistance.**

They are generally **white** in color and are available in forms such as **blankets, boards, papers, and modules.**

Ceramic fibers are used in **industries where lightweight insulation and high temperature performance are required.**

Ceramic Fibers Product List



Ceramic Fiber Blanket



Ceramic Fiber Board



Ceramic Fiber Module



Ceramic Fiber Paper



Ceramic Fiber Bulk



Ceramic Fiber Rope



Ceramic Fiber Blanket

Technical Specification : Ceramic Fiber Blanket

Properties	1260°C (RTZ) Ceramic Blankets	1425°C (HTZ)Ceramic Blankets
Color	White	White
Classification Temperature	1260 °C	1425 °C
Max Service Temperature	1300 °C	1425 °C
Operating Temperature	1200 °C	1400 °C
Specific Heat (Btu/lbs/F)	0.27	0.27
Mean Fiber Diameters	2.6-3.4 Microns	2.6-3.4 Microns
Densities Lb/ft3 (kg/m3)	4 (64) , 6 (96) , 8 (128)	4 (64) , 6 (96) , 8 (128)
	Chemical Properties	
Al2O3	44-48 %	35-39 %
SiO2	53-57 %	47-51 %
ZrO2	-	14-18 %
Fe2O3	0.10%	0.10%
TiO2	0.30%	0.30%
	Tensile Strength (Kgf/m2) (ENV 1094-7)	
64 kg/m3	2500	2500
96 kg/m3	4500	4500
128 kg/m3	6000	6000
Linear Shrinkage – 24 Hours Max (ENV 1094-7)	3.0 % (1200 °C)	3.5 % (1400 °C)
	Thermal Conductivity in W/mk	
At 600 °C mean Temp.	Density- 96 Kg/m3	Density- 128 Kg/m3
RTZ (1200 °C)	0.14	0.12
HTZ (1400 °C)	0.14	0.12

Ceramic Fiber Blanket

AVAILABLE SIZE & DENSITY

Standard Density (kg/m3)

6,496,128,160

Standard Thickness

13 mm, 25mm, 38mm, 50 mm

Standard Size

610x7300mm, 610x3650mm, 1220x7300mm

* In addition to the above ranges, we can completely customize the product as per customer's request.

CHARACTERISTICS

- Low Thermal Conductivity
- Low Heat Storage
- High Tensile Strength
- Thermal Shock Resistance
- Light Weight Refractory Materials
- Sound Absorption
- Flexible and Easy to Cut and Install
- Contains no Organic Binder
- Contains no Asbestos
- No Curing on Dry Out Time Required

AREA OF APPLICATION

Industries	Application
Steel Industry	Heat Treating and Annealing Furnaces, Furnace Door Linings and Seals, Soaking Pit Convers and Seals, Furnace Hot Face Repairs, Reheat Furnaces , Ladle Covers.
Power Plants	Boiler Insulation, Boiler Doors, Reusable Turbine Covers, Pipe Covering.
Ceramic Industry	Kiln Car Insulation and Seals, Continuous and Batch Kilns
Other Applications	Insulation of Commercial Dryers and Covers, Veneer Over Existing Refractory, Stress Relieving Furnaces, Glass Furnace Crown Insulation, Fire Protection
Typical Applications	Refining and Petrochemical,Reformer and Pyrolysis Furnaces, Tube Seals, Gaskets and Expansion Joints, High Temperature Pipe, Duct and Turbine Insulation, Crude Oil Heater Linings.



Ceramic Fiber Board

Technical Specification : Ceramic Fiber Board		
Parameters	1260 °C (2300 °F)	1425 °C (2600 °F)
Al2O3	> 40	> 29
SiO2	< 60	< 55
ZrO2	-	> 10
Density (kg/m³)	280-320	280-320
Classification Temperature (°C)	1260	1425
Maximum Operating Temperature (°C)	1200	1350
Water Content (%)	≤1	≤1
Linear Shrinkage after heating (%)	1000°C*24h<2.5	1350°C*24h<2.5
Cold Crushing Strength (MPa)	0.12-0.2	0.12
Loss of Ignition (wt%)	≤7	≤7
Thermal Conductivity (W/mK)		
200°C	0.055	0.078
400°C	0.073	0.102
500°C	0.086	0.116
600°C	0.105	0.135

AVAILABLE GRADE AND SIZES

Grade (°C) : 1260 °C & 1425 °C

Thickcness (mm) : 10 mm to 100 mm

Standard (Width x Length) mm: 500x1000 mm, 600x1000 mm

Density (Kg/m3): 320-384 kg.m3

Packing

Thickcness (12 mm) = 12 PCs/Box, Thickcness (25 mm) = 06 PCs/Box

Thickcness (50 mm) = 04 PCs/Box, Thickcness (100 mm)= 02 PCs/Box

Ceramic Fiber Board

CHARACTERISTICS

- Excellent insulating performance.
- Excellent thermal stability.
- Excellent strength and hardness.
- Resistance to thermal shock.
- Good machinability.
- Low thermal conductivity, sound transmission, and heat storage.
- Uniform density and excellent resistance to thermal shock and chemical attack.
- Resists penetration by molten aluminum and other non-ferrous metals.
- Permits fast thermal cycling without cracking or spalling.
- Excellent rigidity and modulus of rupture make the boards strong and self-supporting, yet relatively lightweight and easy to cut or machine.

AREA OF APLICATION

- Expansion joint boards
- Refractory lining for industrial furnaces for walls, roofs, doors, stacks, etc
- Hot face layer for high velocity or abrasive furnace atmosphere
- Barrier against flame or heat
- Transfer of molten aluminum and other non-ferrous metals
- Back-up insulation for brick and monolithic refractories
- Combustion chamber liners, boilers, and heaters
- Industrial heat process equipment insulation
- Infra red element supports
- Board over blanket hot face lining
- High temperature boiler wall insulation
- Well suited for applications experiencing vibration, mechanical stress, and strong erosive forces



Ceramic Fiber Module

Technical Specifications: CERAMIC FIBER MODULE			
Description	STD Module	HP Module	HZ Module
Chemical Composition (%)			
Al2O3	≥44	≥45	≥34
SiO2	≥52	≥54	≥50
Fe2O3+TiO2	≤1.0	≤0.5	≤0.5
ZrO2	-	-	≥15
K2O+Na2O+Fe2O3	≤1.0	≤0.2	≤0.2
Physical Properties			
Density (kg/m³) avg	220	220	220
Classification Temperature (°C)	1260	1260	1430
Liner Shrinkage after Heating (%)	1000°Cx24h≤2.5	1100°Cx24h≤2.5	1350°Cx24h≤3.5
Thermal Conductivity (W/mK)			
400°C	0.09	0.101	0.118
500°C	0.119	0.12	0.149
600°C	0.152	0.175	0.172

DESCRIPTION

Ceramic fibre Modules are made from high quality needled Blanket, Edge staked (or) Folded with various anchors and other accessories to enable quick, convenient and efficient installation in most furnace linings. These prefabricated modules are designed to meet the thermal insulation requirements of high temperature furnaces.

Modules are made from ceramic fibre, pre-compressed to a specific density, and held in position with the suitable anchors/accessories.



Calcium Silicate Products

Calcium Silicate Insulation Boards are made from **calcium and silicon** and are designed for **high-temperature and fire-resistant** applications.

They are widely used for **pipes, thermal equipment, power plants, petrochemical units**, and **foundries** as thermal insulation and as back-up lining for **industrial furnaces.**

These boards are designed to provide high structural strength and can operate in systems up to **1200°F**. Made from **hydrous calcium silicate**, they are **inorganic, non-combustible**, and meet standard physical and thermal property requirements, while offering **corrosion resistance** on exposed surfaces of pipes and equipment.

Calcium Silicate Boards are available in **preformed block and preformed pipe** forms and are suitable for **chemical plants, refineries, steam power plants**, and **other industrial sectors** requiring reliable fire and thermal protection.

Technical Specification : Calcium Silicate Board

PARAMETERS	800- GRADE	1000- GRADE	1100 GRADE
Temperature, max service °C	800 °C	1000 °C	1100 °C
Average Bulk Density, dry	220-280 Kg/m3	240-280 Kg/m3	260-300 Kg/m3
Flexural strength, (min.)	300 KN/m2	350 KN/m2	600 KN/m2
Compressive Strength,reduction in thickness not to exceed under a load of:			
I) 415 KN/m2, dry %	5	5	5
II) 170 KN/m2, after 18 hrs immersion in water %	5	5	5
Heat Resistance, under soaking			
I) Linear Reheating Shrinkage (max.)- 12 Hours %	2 at 800 °C	2 at 950 °C	1.5 at 1050 °C
II) Loss In Mass (max.) %	14	12	10
III) Compressive Strength, reduction in thickness not to exceed under a load of 345 KN/m2 (max.) %	5	5	5
Thermal Conductivity at mean temperature (max.) W/m-K			
300 °C	0.078	0.078	0.076
400 °C	0.097	0.097	0.09
500 °C	-	0.118	0.11
550 °C	-	-	0.114
Moisture contents, by weight, (max.) %	5	5	5
Alkalinity (pH)	8 to 11	8 to 11	8 to 11

Calcium Silicate Board

AVAILABLE GRADE & SIZES
GRADES
800 °C Temeprature
1000 °C Temeprature
1100 °C Temeprature
Available Sizes (With 25,40,50,65,75,100 mm Thickness)
1000x500 mm
1000x610 mm
900x600 mm
500x150 mm
600x150 mm
450x150 mm
*** Special sizes and thicknesses can be manufactured upon request.**

INDUSTRIES	AREA OF APPLICATIONS
Aluminium Industry	Alumina Calcinators, Reduction Cells (Pots), Homogenizing and Holding Furnaces.
Cement Industry	Tertiary Air Ducts and Flue Gas Ducts, Preheater Cyclones, Precalcinators, Kiln Riser Ducts, Firing Hood, Grate Coolers.
Furnaces	Heat Treatment, Reheating and Annealing.
Ceramic and Glassware	Glass Melting Furnaces, Tunnel Kilns, Regenerators and Annealing Lehrs.
Sugar Industry	Boiler and Steam Pipelines.
Iron and Steel Industry	Flue Gas Ducts, Bustle Pipes, Reheat & Annealing Furnaces, Waste Heat Boiler, Roof Tops, Regenerators, Doors of Coke Oven Batteries, Lime Kilns, After Burning and Dust Settling Chambers of Sponge Iron Plants.
Power Plants	Boilers, Steam Pipelines, Turbines and Chimneys.
Passive Fire Protection	Heat Protection,Core Material for Fire Doors, Shielding around Fire Places and Stoves.
Fertilizer, Refinery and Petrochemical Industry	Reformer, Gas Crackers, Heaters, Boilers, Steam and Process Pipelines and Fuel Oil Lines.



Refractory Morter & Cement

Refractory Mortar is a specially prepared mix of **sand, calcium aluminate cement, fireclay, and additives.**

It is used for **laying and bonding firebricks** in areas exposed to **very high temperatures**, as well as for **repairing furnace linings.**

This mortar is suitable for use in **glass furnaces, blast furnaces, coke ovens, soaking furnaces, heat exchangers, boilers,** and **other industrial kilns.**

Key features include good **high-temperature strength, thermal stability, resistance to slag erosion,** and **long service life.**

Refractory Mortar Product List



Fire Clay



IS-8 Mortar



Mortar Lee Set 50



70% Alumina Mortar

Refractory Mortar Product List



90% Alumina Mortar



50% Alumina Cement



75% Alumina Cement



IS-8 Mortar

Technical Specifications: IS-8 Mortar

General Properties	Unit	Value
Nature of bond	-	Air Setting / Ceramic
Method of application	-	Mortar
Top of grains size	Mm	0.5
Water for Toweling consistency	%	15 – 27
Maximum safe application Temperature	℃	1200
Sintering Temperature	℃	950
CHEMICAL ANALYSIS		
Al_2O_3	%	35 – 40
Fe_2O_3	%	3.7 – 5.1
PHYSICAL / THERMAL PROPERTIES		
Retained Above Maximum Size	%	1.6
Pyrometric Cone Equivalent	Orton / ℃	12 / 1285
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	09 Months



Mortar Lee Set 50

Technical Specification : Mortar Lee Set-50

General Properties	Unit	Value
Nature of bond	-	Chemical / Ceramic
Type	-	Alumina Mortar
Top of grains size	Mm	0.5
Water for Toweling consistency	%	21 – 28
Maximum safe application Temperature	°C	1450
Sintering Temperature	°C	1000
CHEMICAL ANALYSIS		
Al_2O_3	%	45 – 50
Fe_2O_3	%	3.9 – 4.9
PHYSICAL / THERMAL PROPERTIES		
Retained Above Maximum Size	%	1.5
Pyrometric Cone Equivalent	Orton / °C	29 / 1624
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	09 Month



70% Alumina Mortar

Technical Specifications : 70% Alumina Mortar

General Properties	Unit	Value
Nature of bond	-	Chemical / Ceramic
Type	-	Alumina Mortar
Top of grains size	mm	0.5
Water for Toweling consistency	%	21 – 28
Maximum safe application Temperature	°C	1700
Sintering Temperature	°C	1050
CHEMICAL ANALYSIS		
Al_2O_3	%	65 – 70
Fe_2O_3	%	2.9 – 3.5
PHYSICAL / THERMAL PROPERTIES		
Retained Above Maximum Size	%	1.4
Pyrometric Cone Equivalent	Orton / °C	31 / 1680
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	09 Month



90% Alumina Mortar

Technical Specifications : 90% Alumina Mortar		
General Properties	Unit	Value
Nature of bond	-	Chemical / Ceramic
Type	-	Alumina Mortar
Top of grains size	mm	0.5
Water for Toweling consistency	%	22 – 30
Maximum safe application Temperature	°C	1800
Sintering Temperature	°C	1100
CHEMICAL ANALYSIS		
Al_2O_3	%	87 – 90
Fe_2O_3	%	0.8 – 1.25
PHYSICAL / THERMAL PROPERTIES		
Retained Above Maximum Size	%	1.3
Pyrometric Cone Equivalent	Orton / °C	36 / 1807
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	09 Month



50% Alumina Cement

Technical Specification: 50% Alumina Cement	
CHEMICAL ANALYSIS	
Al2O3	: 50-52 % (+/- 1% min)
Fe2O3	: 3.5-4.0 % (Max.)
CaO	: 35-37 % (Max.)
CCS at 24Hrs	: 400-450 Kg/cm2 (Min)
CCS at 48HrsV110 Deg.C	: 450 - 500 Kg/cm2 (Min)
SETTING TIME	
Initial Setting Time	: 30 Minutes (Min)
Final Setting Time	: 400 Minutes (Max)
PCE	: 14 Orton Cone
MESH	: Passing 95% in 170 Mesh
Colour	: Off-White
Specific Surface Area	: 3500 Cm2/gm (Min.)
Note: All Testing done as per IS 4031-1988 at Room Temperature 25°C	
Relative Humidity	65 +/- 5%
Water Temperature	18-22 °C



75% Alumina Cement

Technical Specification : 75% Alumina Cement	
CHEMICAL ANALYSIS	
Al2O3	75 (+/- 1% min)
Fe2O3	0.4 % (Max.)
CaO	25 % (Max.)
CCS at 24Hrs	250 - 300 Kg/cm2 (Min)
CCS at 48HrsV110 Deg.C	450 - 500 Kg/cm2 (Min)
SETTING TIME	
Initial Setting Time	60 Minutes (Min)
Final Setting Time	300 Minutes
PCE	31
MESH	Passing 95% in 200 Mesh
Colour	Off-White
Specific Surface Area	4300 Cm2/gm
Note: All Testing done as per IS 4031-1988 at Room Temperature 25 °C	
Relative Humidity	65 +/- 5%
Water Temperature	18-22 °C



Monolithic / Castable

Refractory Castables are made from **refractory aggregates, powders, binders, and additives**. They are supplied ready for use after adding the required amount of water or other liquid.

These castables are used as **linings for rotary kilns, converters, heat treatment furnaces, metallurgical furnaces, chemical units**, and **other industrial furnace** areas.

The castables are processed using **controlled formulations and quality materials** to ensure **consistent performance and good shelf life.**

They offer good resistance to **heat, wear, and mechanical stress**, making them suitable for **long-term service** in demanding furnace applications.

Monolithic / Castable Product List



Lee Cast Super



Lee Heat - A



Lee Heat - K

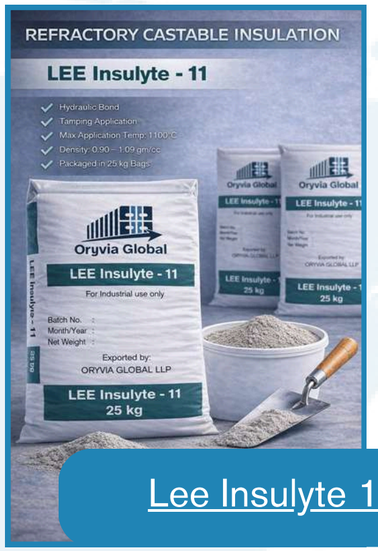


Lee Heat - C

Monolithic / Castable Product List



Lee Insulyte 7



Lee Insulyte 11



Low Cement LCC - 60



Low Cement LCC - 90



Lee Cast Super

Technical Specification : Lee Cast Super		
General Properties	Unit	Value
Nature of bond	-	Hydraulic
Method of application	-	Vibration Casting
Top of grains size	mm	5
Water requirement for casting	%	10 – 11
Maximum safe application Temperature	°C	1450
	CHEMICAL ANALYSIS	
Al_2O_3	%	65 – 68
CaO	%	5.2 – 6.00
Fe_2O_3	%	4.0 – 5.5
	PHYSICAL / THERMAL PROPERTIES	
Dry Density (After drying at 120°C / 24Hrs)	gm/cc	2.45 – 2.55
CCS		
(After drying at 120°C/24Hrs)	Kg/Cm2	180 – 280
(After heating at 1400°C/3Hrs)		350 – 450
PLC		
(After heating at 1100°C/3Hrs)	%	±0.30
(After heating at 1400°C/3Hrs)		±1.25
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	9 Month



Lee Heat - A

Technical Specification : Lee Heat - A		
General Properties	Unit	Value
Nature of bond	-	Hydraulic
Method of application	-	Vibration Casting
Top of grains size	mm	5
Water requirement for casting	%	12 – 16
Maximum safe application Temperature	°C	1700
CHEMICAL ANALYSIS		
Al_2O_3	%	85 – 88
CaO	%	4.4 – 5.7
Fe_2O_3	%	2.5 – 3.5
PHYSICAL / THERMAL PROPERTIES		
Dry Density (After drying at 120°C / 24Hrs)	gm/cc	2.75 – 2.80
CCS		
(After drying at 120°C/24Hrs)	Kg/Cm2	225 – 280
(After heating at 1400°C/3Hrs)		550 – 600
PLC		
(After heating at 1100°C/3Hrs)	%	±0.15
(After heating at 1400°C/3Hrs)		±1.15
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	9 Month



Lee Heat - K

Technical Specification : Lee Heat - K		
General Properties	Unit	Value
Nature of bond	-	Hydraulic
Method of application	-	Vibration Casting
Top of grains size	mm	5
Water requirement for casting	%	10 – 11
Maximum safe application Temperature	°C	1550
CHEMICAL ANALYSIS		
Al_2O_3	%	56 – 60
CaO	%	4.2 – 6.8
Fe_2O_3	%	1.25 – 1.5
PHYSICAL / THERMAL PROPERTIES		
Dry Density (After drying at 120°C / 24Hrs)	gm/cc	1.20 – 1.30
CCS		
(After drying at 120°C/24Hrs)	Kg/Cm2	180 – 280
(After heating at 1400°C/3Hrs)		450 – 500
PLC		
(After heating at 1100°C/3Hrs)	%	±0.12
(After heating at 1400°C/3Hrs)		±1.65
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	9 Month



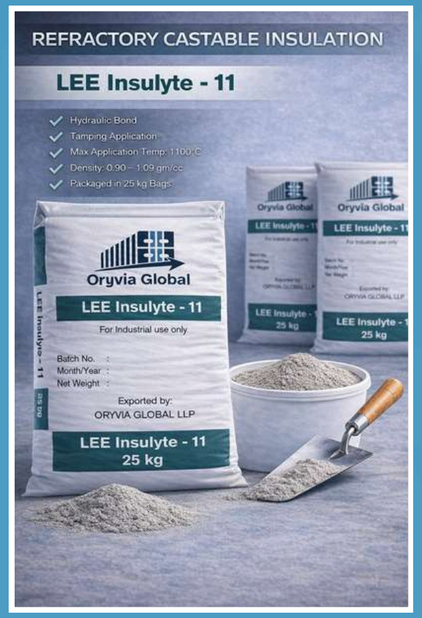
Lee Heat - C

Technical Specification : Lee Heat - C		
General Properties	Unit	Value
Nature of bond	-	Hydraulic
Method of application	-	Vibration Casting
Top of grains size	mm	5
Water requirement for casting	%	11 – 14
Maximum safe application Temperature	°C	1500
CHEMICAL ANALYSIS		
Al_2O_3	%	48 – 51
CaO	%	3.4 – 6.5
Fe_2O_3	%	1.5 – 2.5
PHYSICAL / THERMAL PROPERTIES		
Dry Density (After drying at 120°C / 24Hrs)	gm/cc	1.15 – 1.20
CCS		
(After drying at 120°C/24Hrs)	Kg/Cm2	180 – 280
(After heating at 1400°C/3Hrs)		400 – 450
PLC		
(After heating at 1100°C/3Hrs)	%	±0.25
(After heating at 1400°C/3Hrs)		±1.45
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	9 Month



Lee Insulyte 7

Technical Specification : Lee Insulyte 7		
General Properties	Unit	Value
Nature of bond	-	Hydraulic
Method of application	-	Tamping
Top of grains size	mm	7
Water requirement for casting	%	37 – 45
Maximum safe application Temperature	°C	1150
CHEMICAL ANALYSIS		
Al_2O_3	%	33 – 38
Fe_2O_3	%	7.25 – 8.5
PHYSICAL / THERMAL PROPERTIES		
Dry Density (After drying at 120°C / 24Hrs)	gm/cc	0.80 – 0.95
CCS		
(After drying at 120°C/24Hrs)	Kg/Cm2	12 – 28
(After heating at 1400°C/3Hrs)		30 – 43
PLC		
(After heating at 1100°C/3Hrs)	%	-0.12
Refractoriness Orton/ oC	Orton/ °C	11/1273
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	9 Month



Lee Insulyte 11

Technical Specification : Lee Insulyte 11		
General Properties	Unit	Value
Nature of bond	-	Hydraulic
Method of application	-	Tamping
Top of grains size	mm	7
Water requirement for casting	%	40 – 56
Maximum safe application Temperature	°C	1100
CHEMICAL ANALYSIS		
Al_2O_3	%	28 – 30
Fe_2O_3	%	7.45 – 8.76
PHYSICAL / THERMAL PROPERTIES		
Dry Density (After drying at 120°C / 24Hrs)	gm/cc	0.90 – 1.09
CCS		
(After drying at 120°C/24Hrs)	Kg/Cm2	12 – 26
(After heating at 1400°C/3Hrs)		32 – 45
PLC		
(After heating at 1100°C/3Hrs)	%	-0.13
Refractoriness Orton/ oC	Orton/ °C	10/1251
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	9 Month



Low Cement LCC - 60

Technical Specification : Low Cement LCC - 60		
General Properties	Unit	Value
Nature of bond	-	Hydraulic
Method of application	-	Vibration Casting
Top of grains size	mm	5
Water requirement for casting	%	11 – 18
Maximum safe application Temperature	°C	1700
CHEMICAL ANALYSIS		
Al_2O_3	%	56 – 61
CaO	%	3.6 – 4.8
Fe_2O_3	%	2.4 – 3.6
PHYSICAL / THERMAL PROPERTIES		
Dry Density (After drying at 120°C / 24Hrs)	gm/cc	2.50 – 2.55
CCS		
(After drying at 120°C/24Hrs)	Kg/Cm2	225 – 280
(After heating at 1400°C/3Hrs)		450 – 550
PLC		
(After heating at 1100°C/3Hrs)	%	±0.20
(After heating at 1400°C/3Hrs)		±1.35
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	9 Month



Low Cement LCC - 90

Technical Specification : Low Cement LCC - 90		
General Properties	Unit	Value
Nature of bond	-	Hydraulic
Method of application	-	Vibration Casting
Top of grains size	mm	5
Water requirement for casting	%	10 – 19
Maximum safe application Temperature	°C	1800
CHEMICAL ANALYSIS		
Al_2O_3	%	87 – 90
CaO	%	3.5 – 4.7
Fe_2O_3	%	2.3 – 3.7
PHYSICAL / THERMAL PROPERTIES		
Dry Density (After drying at 120°C / 24Hrs)	gm/cc	2.85 –2.9
CCS		
(After drying at 120°C/24Hrs)	Kg/Cm2	220 – 270
(After heating at 1400°C/3Hrs)		550 – 650
PLC		
(After heating at 1100°C/3Hrs)	%	±0.32
(After heating at 1400°C/3Hrs)		±1.26
Packing	-	25 Kg HDPE Bag
Dry storage life for best performance	-	9 Month



Refractory Liquid Mortar

Our air-set refractory mortar is a ready-to-use solution designed for lining refractory bricks and insulation bricks. It combines high-quality refractory materials and binders to deliver excellent adhesiveness at room temperature and superior bonding strength after sintering at **1200℃–1500℃.**

Applications:

Ideal for bonding insulation and refractory bricks, it is perfect for sealing and repairing furnaces, combustion chambers, boilers, stoves, flues, ducts, chimneys, and various other high-temperature refractory applications.

Key Features:

- Ready to use
- Easy application
- Wet refractory mortar
- High-temperature refractoriness

Usage Guidelines:

- For a thickness of **1.7–3.0 mm**, dry at **110℃** for **4 hours.**
- For uneven surfaces or thickness **3.1–5.0 mm**, first dry at **80℃** for **4 hours**, then increase to **110℃ for 4 hours**.
- Adhesive can be removed before drying without affecting performance.

Refractory Liquid Mortar

Technical Specification : Liquid Mortar		
General Properties	Unit	Value
Nature of bond	-	Ceramic
Method of application	-	Vibration Casting
Status	-	Ready Mix
Top of grains size	mm	0.5
Maximum safe application Temperature	℃	1400
	CHEMICAL ANALYSIS	
AL2O3	%	44 – 48
Na2O	%	8.0 – 9.5
SiO2	%	40.5 – 52.0
	PHYSICAL / THERMAL PROPERTIES	
Wet Density	gm/cc	1.80 – 2.1
Solid Content	%	74 – 76
Initial Setting Time **Final Setting Time**	Hrs	5 – 8 At working Temp
Packing	-	20 & 40 Kg Drum
Dry storage life for best performance	-	5 Month

Contact Us



Email

Info@oryviaglobal.com



Phone

+91 97373 30365



Website

www.oryviaglobal.com



Address

Wankaner, Gujarat, India - 363621



www.oryviaglobal.com