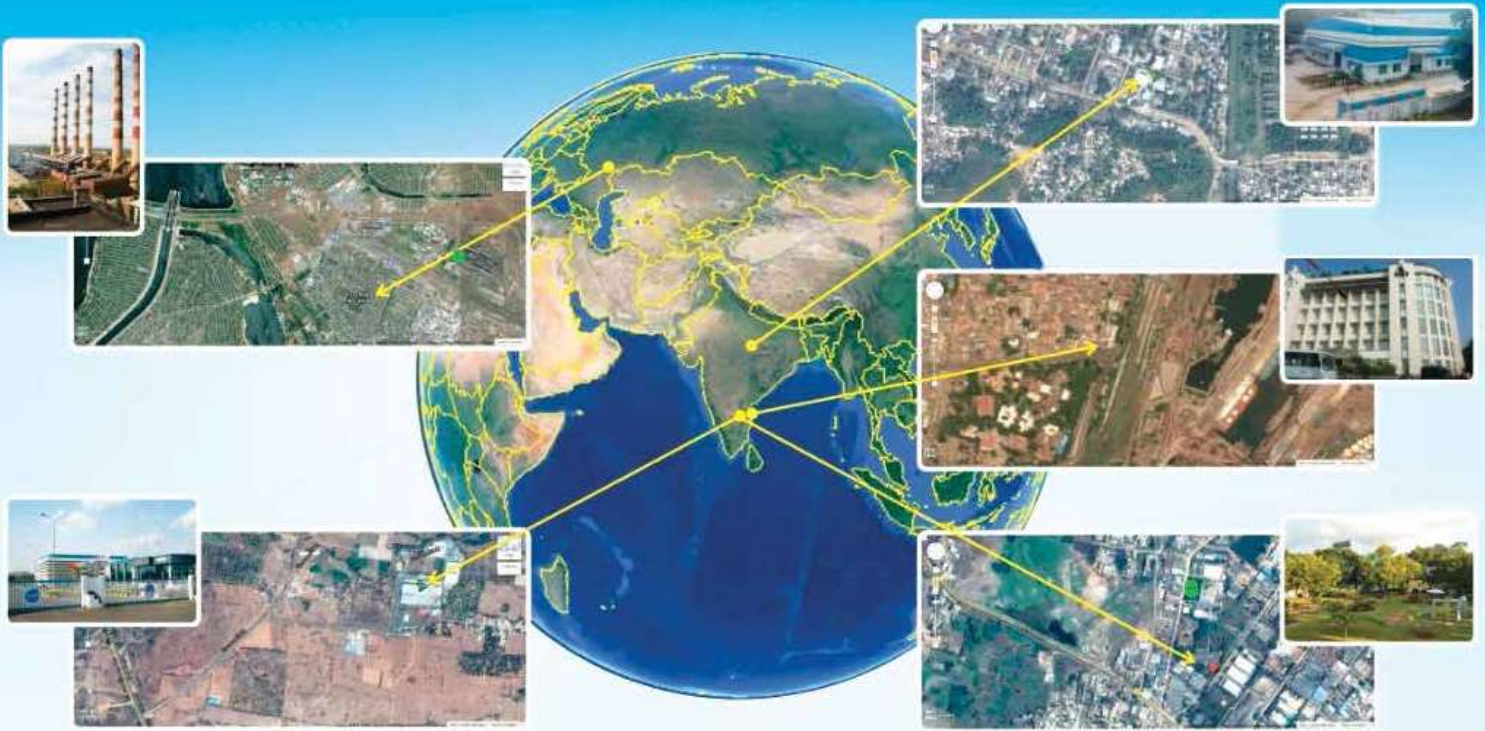




**CUMI**  
SUPER REFRACTORIES

*Your Preferred Partner for High Performance*



Founded in 1900, the INR 300 Billion Murugappa Group is one of India's leading business conglomerates. The Group has 28 businesses including nine listed Companies traded in NSE & BSE. Headquartered in Chennai, the major Companies of the Group include Carborundum Universal Ltd., Cholamandalam Investment and Finance Company Ltd., Cholamandalam MS General Insurance Company Ltd., Coromandel International Ltd., Coromandel Engineering Company Ltd., E.I.D. Parry (India) Ltd., Parry Agro Industries Ltd., Parry Sugar industries Ltd, Shanthy Gears Ltd., Tube Investments of India Ltd., and Wendt (India) Ltd. The Group fosters an environment of professionalism and has a workforce of over 32,000 employees.

**The Spirit of the Murugappa Group**

Integrity  
Responsibility  
Passion  
Respect  
Quality

**The five lights**  
The values, principles and beliefs that have always guided us and continue to steer the way forward.

<p><b>Integrity</b></p> <p>We value professional and personal integrity to achieve all that we do. We achieve our goals by being honest and straightforward with all our stakeholders. We earn trust with every action, every minute of every day.</p>	<p><b>Passion</b></p> <p>We play to win. We have a healthy desire to stretch, to achieve personal goals and accelerate business growth. We strive consistently to improve and be energetic in everything that we do.</p>	<p><b>Quality</b></p> <p>We take ownership of our work. We challenge ourselves to high standards of quality in both what we do and the way we do it. We take pride in excellence.</p>
<p><b>Respect</b></p> <p>We respect the dignity of every individual. We are open and transparent with each other. We inspire and enable people to achieve high standards and challenging goals. We provide everyone equal opportunities to progress and grow.</p>	<p><b>Responsibility</b></p> <p>We are responsible corporate citizens. We believe we can help make a difference to our environment and change lives for the better. We will do this in a manner that builds our site and also reflects our humility.</p>	



CUMI was founded in 1954 as a tripartite collaboration between the Murugappa Group, The Carborundum Co., USA and the Universal Grinding Wheel Co. Ltd., U.K. The company pioneered the manufacture of Coated Abrasives and Bonded Abrasives in India in addition to the manufacture of Super Refractories, Electro Minerals, Industrial Ceramics and Ceramic Fibres. Today the company's range of over 20,000 different varieties of abrasives, refractory products and electro-minerals are manufactured in ten locations across various parts of the country. With state-of-the art facilities and strategic alliances with global partners, CUMI has achieved a reputation for quality and innovation. CUMI is one of the five manufacturers in the world with fully integrated operations that include mining, fusing, wind and hydro power stations, manufacturing, marketing and distribution.

## CUMI Super Refractories

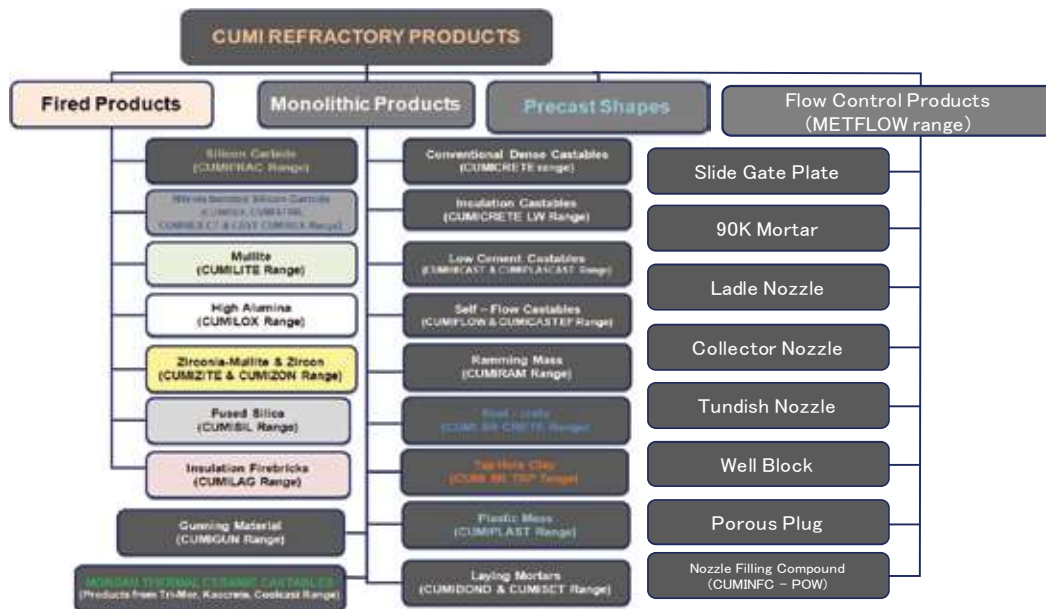
A market leader in the manufacture of specialty refractory products in India since 1965 with technical know-how from Carborundum USA. The division specializes in the manufacture of both fired and monolithics range of refractories catering to the critical and demanding high temperature applications for various industrial applications.

Primary product lines in the Fired range include Silicon Carbide, Nitride Bonded Silicon Carbide, Mullite, and Zircon- Mullite, High Alumina, Fused Silica and Insulating fire bricks.

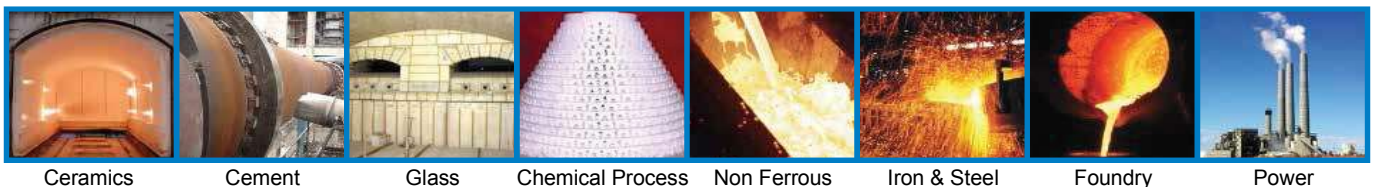
The primary product lines in the monolithics range include the Conventional Castables, Low Cement Castables, Insulation Castables, Self-flow Castables, Gunning Materials, Shot-crete, Ramming Masses and Laying Mortars.

Super Refractories is dedicated to providing our customers with the highest-quality, most highly effective products, systems and services. The products manufactured conform to the ISO 9001 Quality standards and procedures, ensuring customer satisfaction.

In addition to being a leading supplier of specialty refractory in the Indian market, we serve customers in the Middle East, Asia, Europe, North America, Australia, ASEAN and SAARC countries.



## Industrial Segments we serve



Due to continuous product development and improvement product recommendation and specification may change. We would request our customers to contact nearest CUMI representatives.

## REFRACTORIES FOR CEMENT INDUSTRY

CUMI offers various Conventional Castables, Insulation Castables, High abrasion resistant Low Cement Castables & Shotcrete Solutions for Cement Industries. CUMI also has ability and experience to offer all technical services related to design and installation of refractories.

APPLICATION GUIDELINE FOR CEMENT INDUSTRY	CUMICRETE M45	CUMICRETE M45 SPL	CUMICRETE CK 14	CUMICRETE M 70	CUMICRETE CII 104	CUMIHICAST SUPER	CUMIHICAST 50 WR	CUMIHICAST 50 AR	CUMIHICAST 50A SPL	CUMIHICAST 39 WR	CUMIHICAST 60	CUMIHICAST 60A	CUMIHICAST 70M	CUMIHICAST 70 AR	CUMIHICAST 70 LI	CUMIHICAST 75R	CUMIHICAST EXTRA	CUMIHICAST 80	CUMIHICAST 90	CUMIHICAST 90 AR	CUMIHICAST 30 SIC	CUMIHICAST 33 SIC	CUMIHICAST 45 SIC	CUMI INSTASHOT 50	CUMI INSTASHOT 60A	CUMI INSTA SHOT 10 SiC	CUMI INSTASHOT 15 SiC
Cyclone Walls																											
Cyclone Roof																											
Cone Sections & Feed Pipes																											
Calcliner																											
Riser																											
Back-Up Linings																											
Tertiary Air Duct																											
Tertiary Air Duct Bends and Damper																											
Kiln Inlet																											
Kiln Hood																											
Nose Ring																											
Bull Nose																											
Cooler Entry Side walls																											
Cooler roof																											
Backing Lining																											
Grate Level Walls																											
Burner Pipe																											
Cool end Sidewalls, TA Duct & Offtakes																											
Patching Mass																											



# REFRACTORIES FOR CERAMIC INDUSTRY

Refractories play a major role in defining the efficiency of Kiln, Kiln car & Kiln furniture. CUMI offers Insulation, Mullite, Silicon Carbide, Nitride Bonded Silicon Carbide refractories for ceramic industry. CUMI's total solutions include innovative cutting edge products and technical expertise, combined with customer specific application engineering support.

APPLICATION GUIDELINE FOR KILN LINING	CUMILAG 23	CUMILAG 26	CUMILAG 28	CUMILAG 29	CUMILAG 30	CUMILAG 32	CUMILAG B101	CUMILAG B201	CUMILAG B201 SPL	CUMILITE W	CUMILITE WHF	CUMILITE 65A	CUMILITE 65A SPL	CUMILOX 201 HF	CUMISTAR	PCPF CUMICAST EF 804	PCPF CUMICRETE CK 15	PCPF HICAST 75R
<b>Kiln Lining</b>																		
Tunnel Kiln Temperature 1280 - 1450°C, Hot Zone																		
Tunnel Kiln Temperature 1280 - 1450°C, Other Zone																		
Tunnel Kiln Temperature > 1450 - 1700°C, Hot Face - Hot Zone																		
Tunnel Kiln Temperature > 1450 - 1700°C, Hot Face - Backup																		
Tunnel Kiln Temperature > 1450 - 1700°C, Hot Face - Other Zone																		
Shuttle Kiln Temperature 1280 - 1450°C, Hot Face																		
Shuttle Kiln Temperature 1280 - 1450°C, Backup																		
Shuttle Kiln Temperature 1450 - 1650°C, Hot Face																		
Shuttle Kiln Temperature 1450 - 1650°C, Backup																		
Shuttle Kiln Temperature 1650 - 1800°C, Hot Face																		
Shuttle Kiln Temperature 1650 - 1800°C, Backup																		
Burner Blocks (Depending on Operating Temperature)																		
Burner Tubes (Sanitaryware)																		

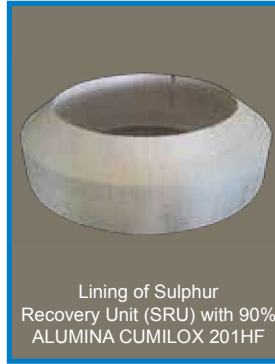
APPLICATION GUIDELINE FOR KILN CAR	CUMILAG 23	CUMILAG 26	CUMILAG 28	CUMILAG 29	CUMILAG 30	CUMILAG 32	CUMILAG B101	CUMILAG B201	CUMILITE W	CUMILITE WHF	CUMILITE HF	PCPF CUMICAST EF 501	PCPF CUMICAST EF 804	PCPF CUMICRETE CK 15	PCPF HICAST 75R	PCPF HICAST 50
<b>Kiln Car</b>																
LTM - Perimeter Blocks 1100-1300°C																
LTM - Innerside 1100-1300°C																
LTM Car Top (Depending On Temperature & Load) 1100-1300°C																
Dense Car - Upper Layer (Depending on Temperature)																
Dense Car - Bottom Layer (Depending on Temperature & Load)																

APPLICATION GUIDELINE FOR KILN FURNITURE	CUMILITE W	CUMILITE HF	CUMILITE WHF	CUMILITE 90 HF	CUMILOX M	CUMILOX 101 HB	CUMILOX 201 HF	CUMIREX	CUMIREX SUPER	CUMIFRAC A24	CUMIFRAC SPL	CUMISTAR
<b>Kiln Furniture</b>												
Temperature <1300°C, Sanitaryware, Pottery												
Temperature <1300°C, Insulator												
Temperature <1300°C, Abrasive												
Temperature 1300 - 1450°C												
Temperature 1450 - 1700°C												
Temperature 1700 - 1800°C												



# REFRACTORIES FOR CHEMICAL PROCESS INDUSTRIES

APPLICATION GUIDELINE FOR SULPHUR RECOVERY UNIT	CUMLAG 26	CUMLAG 28	CUMLAG 30	CUMILOX 201 HF	CUMILITE 90	CUMILOX 101 HF	CARBOLITE 23A	CARBOLITE 25A	CARBOLITE 26A	CUMICRETE CA 66	CUMICRETE CA 58	KAOCRETE HPM 90-TR
Inlet Nozzle												
Checker Wall												
Waste Heat Boiler Tubesheet												
Burner Block												
Main Body												
Transition Section												



Lining of Sulphur Recovery Unit (SRU) with 90% ALUMINA CUMILOX 201HF



Lining of Sulphur Recovery Unit (SRU) with 90% ALUMINA CUMILOX 201HF

APPLICATION GUIDELINE FOR SYNGAS INDUSTRY	CUMILOX 101HB	CUMILITE W	CUMILAG 32	CUMILAG B101	CUMICRETE CA 66	CUMICRETE CA 58	CUMICRETE CA 60	CUMIHICAST 60
<b>Dutch Shell Reactor</b>								
Hot Face								
Reactor Bottom								
Backup Insulation								
Thermocouple Support Shapes								
<b>Texaco Reactor</b>								
Hot Face								
Insulation Layer One								
Insulation Layer Two								
<b>Primary Steam Reformer</b>								
<b>Secondary Reformer</b>								
Hot Face								
Backup Insulation								
Catalyst Bed Support Dome								
Target Tile								
Hydrogen Transfer Line								

## FLUID CATALYTIC CRACKING UNIT

CUMI Super Refractories offers speciality insulation castables, high abrasion resistance castable/thumping mass for FCCU application.

## FIRED HEATERS

CUMI Super Refractories offers insulation firebricks and PCPF burner block for fired heaters



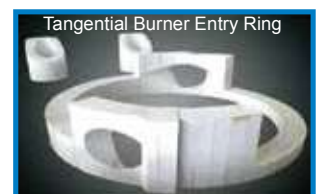
99.5% Alumina CUMILOX 101HB Catalyst bed support

Refractories for Carbon Black manufacturing require high temperature withstanding capability, high erosion resistance and thermal shock resistance. CUMI offer high purity alumina products for Carbon Black industry solutions along with technical expertise.

APPLICATION GUIDELINE FOR CARBON BLACK	CUMILOX 101HB	CUMILOX 10 CR	CUMICRETE CA 66	CUMICRETE CA 58	CUMILOX 201 HF	CUMILOX AZ 95	CUMILITE WHF	CUMILITE 66 A SPL	CUMILAG B 201	CUMI HICAST SUPER	CUMI HICAST EXTRA	CUMI HICAST 70	CUMI HIGH CAST 95	CUMICRETE CK 14	CUMICRETE CK 15	CUMICRETE CII 104	CUMICRETE C9 G	CUMICRETE CK 588	CUMICRETE CIV 650	
<b>Hard Black High Temperature Reactor ~1850°C</b>																				
Head Section-working Lining																				
Head Section-backup Lining																				
Head Section-insulation																				
Choke -section-working Lining																				
Choke -section-backup Lining																				
Choke -section-insulation																				
Cooler																				
Breaching Section-working Lining																				
Breaching Section-insulation																				
<b>Hard Black Conventional Reactor 1650°C and above</b>																				
Working Lining																				
Quench Section																				
Breaching Section-working Lining																				
Breaching Section-backup																				
<b>Hard Black Conventional Reactor 1600°C</b>																				
Working Lining																				
Backup Lining and End Portion																				
<b>Hard Black Conventional Reactor 1550°C</b>																				
Working Lining																				
Backup Lining and End Portion																				
<b>Soft Black Reactor 1600 - 1650°C</b>																				
Working Lining																				
Intermediate Lining																				
Backup Lining																				
End Portion																				
<b>Soft Black Reactor 1500 - 1600°C</b>																				
Working Lining																				
Backup Lining																				
End Portion																				
<b>Boiler Combuster</b>																				
Working Lining																				
Backup Lining																				
Insulation Lining																				



99.5% Alumina CUMILOX 101 HB Choke Section



Tangential Burner Entry Ring

# REFRACTORIES FOR FOUNDRY INDUSTRY

CUMI offers Dry Ramming mass, Conventional Castables, Insulation Castables and special non-wetting monolithic range of products for the foundry industry.

APPLICATION GUIDELINES FOR FERROUS FOUNDRY	CUMICAST EF 95.1M	CUMICRETE CA 392	CUMICRETE CA 66	CUMICRETE CK 14	CUMIFRAC R1	CUMIHICAST 90	CUMIHICAST EXTRA	CUMIHICAST SUPER	CUMILAG 29	CUMILAG 32	CUMILITE W	CUMIRAM RA 83	CUMIRAM EL 2 SRM	CUMIRAM RA 20M	CUMIGUN M455C	CUMICRETE CA 392S	CUMILOX 201 HF	CUMILOX M SPL	CUMILITE HF	CUMILOX 92P	CUMILOX 70 B	CUMIRAM DV 70S	CUMIRAM DV 92A	CUMIRAM DV 91M	CUMIRAM DV 87A	CUMIRAM DV 87A (PM)	CUMIRAM DV 94 AF	
	Electric Arc Furnace Roof-Delta Section & Launder																											
Coreless Induction Furnace Crucible Lining																												
Coreless Induction Furnace Cover, Spout & Tops																												
Channel Induction Furnace Main Bath/Reservoir																												
Channel Induction Furnace - Inductor Lining																												
Channel Induction Furnace - Roof																												
Channel Induction Furnace - Backup Insulation Layer																												
Tundish																												
Tundish Baffle Plate																												
Collar and Top Plug in Casting																												
Crucible for Melting																												
Distribution Box																												
Bottom Pouring Nozzle																												
Working Lining of Induction furnace																												
Alloy Steel																												
Steel																												
Super Alloys																												
Steel Alloy																												
Ferrous Metal & Alloy																												
Metallurgical Furnaces																												
Hot Face Insulation Brick																												
Burner Blocks, Pier Blocks & Supports																												
Heating Element Carrier Bricks & Shapes																												
Foundry Casting Chills/Densifiers																												
Cupola Furnace																												
Ladle																												
Holding Furnace																												

APPLICATION GUIDELINES FOR NON FERROUS FOUNDRY	CUMIHICAST EXTRA	CUMIBOND LA 102	CUMICRETE C 9 G	CUMICRETE CA 392	CUMICRETE CA 58	CUMICRETE CA 66	CUMICRETE CA 96	CUMICRETE CV 531	CUMICRETE CIV 101	CUMIHICAST 90	CUMIHICAST SUPER	CUMILITE W	CUMIRAM RA 20M	CUMIRAM RA 83	CUMIREX	FUSED SILICA	FUSED SILICA LC	MIDCAST	PLASCAST	ALCAST EXTRA	ALCAST EXTRA HS	ALBOND	MORBOD AL	MORFLOW 165 AL	MORFLOW 165	HIGUN 170	PLASGUN	MORGUN AL	ALPATCH	ALCOAT	CUMIRAM DV 63 AC	CUMIRAM DV 91A	CUMIRAM DV 63A	CUMIRAM DV 94A		
	<b>Aluminium &amp; Aluminium Alloys</b>																																			
Working Lining																																				
Reverberatory Furnace Roofs & Doors																																				
Reverberatory Furnace Walls																																				
Ladles																																				
Coreless and Channel Induction Furnace Lining																																				
Induction Furnace, Channel or Coreless, Upper Case(POT)																																				
Induction Furnace, Channel, Inductor Back up																																				
Induction Furnace, Lining, Coreless Coating & Lips																																				
Melting & Holding Furnace																																				
Melting & Holding FurnaceRoof																																				
Melting & Holding Furnace Roof Backup																																				
Melting & Holding Furnace - Upper Walls																																				
Melting & Holding Furnace - Lower Walls																																				
Melting & Holding Furnace - Floor																																				
Melting & Holding Furnace - Door																																				
Melting & Holding Furnace - Door Jamb																																				
Melting & Holding Furnace - Maintenance Gunning																																				
Melting & Holding Furnace - Maintenance																																				
Degassing, Filtration and Head Boxes																																				
Launder																																				
Repairing of Al Non Contact Areas																																				
<b>Copper &amp; Copper Alloys</b>																																				
Melting and Holding Furnace - Main Body & Inductor																																				
Furnace Cover																																				
Working Lining																																				
Reverberatory Furnace																																				
<b>Zinc</b>																																				
Working Lining																																				



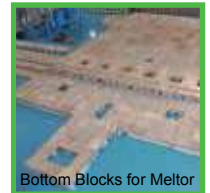
# REFRACTORIES FOR GLASS INDUSTRY

CUMI refractories has been a pioneer in glass plant refractories. CUMI products include solutions for Regenerator, Melter, Distributor, Forehearth & Feeder Expendables. CUMI's ability to manufacture large and complex shapes makes it the ideal refractory manufacturer for glass industry.

APPLICATION GUIDELINE FOR REGENERATOR	CUMLAG 23	CUMLAG 25/26	CUMILITE W	CUMILITE WHF	CUMILITE 60A	CUMILITE 60A SPL	CUMILITE 65A	CUMILITE 65A SPL	CUMIZITE ZM2 HF SPL	CUMIZITE ZM HF	CUMILOX 101HB	CUMIZITE 11	CUMILITE 70A	CUMI FB 42D	CUMISIL 98
Crown															
Chimney Blocks - Top Courses > 250TPD Furnace															
Side Walls - Top Courses															
Side Walls - Middle Courses															
Target Walls - Top Courses															
Target Walls - Middle Courses															
Partition / Division Walls - Top Courses															
Partition / Division Walls - Middle Courses															
Rider Arch & Spanner Tiles															
Wall Backup															
Checkers for Top Layers in Borosilicate Furnace															
Port Neck / Connection															
Regenerator Maintenance															
Flue Gas Channel															



APPLICATION GUIDELINE FOR MELTER	CUMLAG 2612	CUMILITE WHF	CUMILITE 60A	CUMILITE 60A SPL	CUMILITE 65A SPL	CUMIZON	CUMIZON 65 G	CUMIZITE ZM HF	CUMIZITE ZM2 HF SPL	CUMIZITE 11	CUMIZITE ZM 30	PCPF CUMIHICAST SUPER	PCPF CUMIHICAST 60 AV	PCPD CUMIHICAST CZM 31	CUMISIL 98	CUMIRAM RM ZM 6	CUMIRAM ZM 25	CUMIHICAST CZM 31	CUMIRAM ZM RA 65	CUMIRAM ZM RA 65	
Sub Paving																					
Monolithic Layer in Sub Paving																					
Port Burner Blocks																					
Dog House Back-up Arch																					
Crown (>1650°C)																					
Crown Maintenance																					
Buffer Layer in Superstructure																					



APPLICATION GUIDELINE FOR DISTRIBUTOR & FORE HEARTH	CUMLAG 28/25	CUMLAG 2612	CUMILITE WHF	CUMILITE 60A	CUMILITE 60A SPL	CUMILITE 65A	CUMILITE 65A SPL	CUMIZON	CUMIZITE ZM HF	CUMIZITE ZM2 HF SPL	CUMIZITE 11	CUMIZITE 11C	CUMIZITE 30C	PCPF HICAST SUPER	PCPF HICAST 60 AV
<b>Distributor</b>															
Distributor Covers for Soda-lime															
Distributor Covers for Borosilicate															
Distributor Burner Blocks for Soda-lime															
Distributor Burner Blocks for Borosilicate															
Tank Bottom Layer of Distributor															
Bottom Insulation Layer of Distributor															
<b>Forehearth</b>															
Fore Hearth Cover for Soda-lime															
Fore Hearth Cover for Borosilicate															
Fore Hearth Burner Blocks for Soda-lime															
Fore Hearth Burner Blocks for Borosilicate															
Forehearth Channel															
Skimmer Block															
Superstructure															
Substructure															
<b>Feeder Expendables</b>															
Spout															
Spout Burner / Cover for Soda-lime															
Spout Burner / Cover for Borosilicate															
Feeder Channel															





# REFRACTORIES FOR IRON & STEEL INDUSTRY

CUMI offers refractory solutions for Lime Calcination Plant, Pellet Plant, Coke Oven, Blast Furnace, Torpedo Ladle, Ladle, Tundish, Flow control & Reheating Furnace.

APPLICATION GUIDELINE FOR BLAST FURNACE / MBF / COREX	CUMILAG 23	CUMILAG 26	CUMILAG 28	CUMILAG 29	CUMILITE WHF	CUMIREX ZBS	CUMIREX	CUMIGUN HG 160S	CUMICRETE CA 425	CUMICAST EF 851F	CUMIGROUT GR 85	CUMIGROUT GR 85	CUMIGROUT GR HG SPL	CUMIRAM TRR	CUMIRAM TRT	CUMI SR TAP RANGE
Stack Gunning																
Ceramic Cup																
Stack																
BOSCH																
Tuyser Block Fixing Mass																
Pressure Grouting Mass																
Corex Dome																
Backup Insulation for Stove																
Stove Rider Arch																
Grouting Mass																
MBF - Trough Mass																
Mudgun Mass / Tap Hole Clay																

APPLICATION GUIDELINE FOR REHEATING FURNACE	PCPF CUMIHICAST 90	CUMIHICAST 70	CUMIFLOW 50	CUMIFLOW 70	CUMIHICAST 60A
Hearth - Pusher Type					
Hearth - Moving Hearth Furnace					
Skid & Pipe Type Furnace					
Hearth - Walking Beam Type					
Burner Zone - Skid & Pipe					
Inclined Burner Wall					
Tunnel Furnace - Rollers					

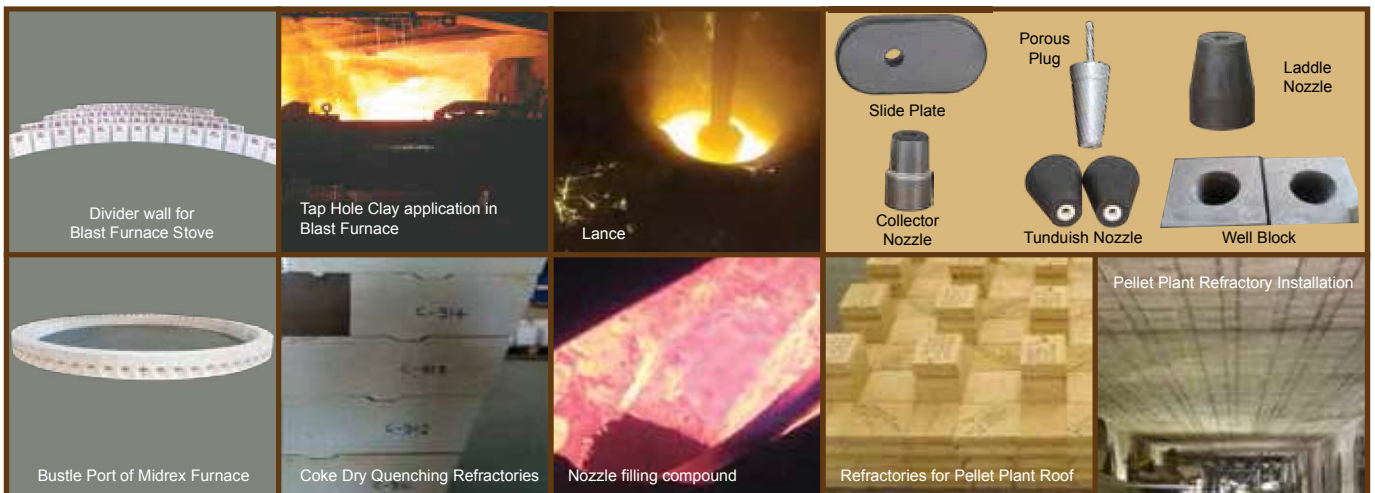
APPLICATION GUIDELINE FOR LADLE	CUMIHICAST 70	CUMIGUN HG 160S	CUMICRETE CA 392S	CUMICRETE CA 85M	PCPF CUMIHICAST 90 WB	PCPF CUMIHICAST 90 SB	CUMICRETE CA 95 SPL	CUMICRETE CK 14	CUMINFC	CUMI NFG ZR	CUMILANCE 02	CUMILANCE 03	METFLOW SLIDE GATE PLATE	METFLOW 90K MORTAR	METFLOW LADLE NOZZLE	METFLOW WELL BLOCK	METFLOW PORUS PLUG	METFLOW WELL BLOCK CUMI NFG (POW)
Ladle Backup																		
Ladle Patching Mass																		
Ladle Well Block																		
Ladle Seating Block																		
Well Block Fixing Mass																		
Ladle Cover																		
Nozzle Filling Compound																		
Monolithic Lance (HMPT & HMDS)																		
Flow Control Refractories for Mini Steel Plant																		

APPLICATION GUIDELINE FOR TUNDISH	CUMIZON	CUMICRETE CK14	CUMICRETE CA 392S	CUMICRETE CA 392S	CUMIHICAST 70	CUMIHICAST EXTRA	CUMIHICAST 90	CUMIHICAST 90 WB	METFLOW TUNDISH NOZZLE
Tundish Backup									
Tundish Backup Patching Mass									
Tundish Dam Striker Pad									
Tundish Wear									
Tundish Well Block									
Tundish Nozzle									
Tundish Cover									
Flow Control Refractories for Mini Steel Plant									

APPLICATION GUIDELINE FOR TORPEDO LADLE	CUMILOX K313W	CUMILIX K313	CUMIHICAST 90	CUMICRETE CA 94	CUMIGUN 80 TL	CUMIGUN 90 TL
Torpedo Ladle Hot Face						
Torpedo Ladle Mouth						
Outside of Torpedo Ladle Mouth						
Hot Gunning Mass						

APPLICATION GUIDELINE FOR PELLET PLANT	CUMILAG 26	CUMILITE 65A SPL	CUMILITE WHF	CUMILOX 85R
Indurating Furnace Roof				
Indurating Furnace Burner Port				
Sinter Plant				
Down Comer				

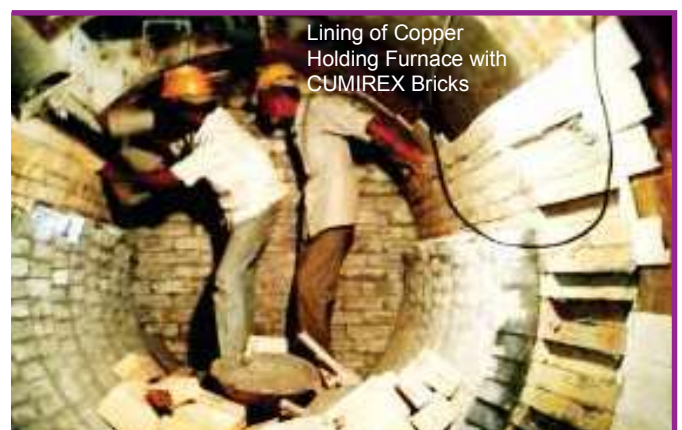
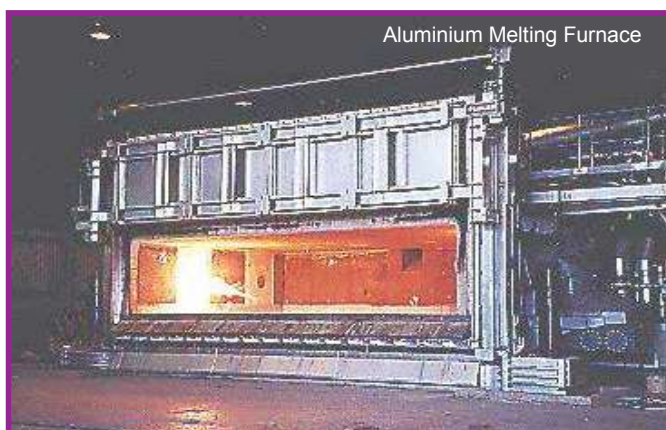
APPLICATION GUIDELINE FOR COKE OVEN	CUMILITE WHF	PCPF CUMIHICAST 60A	CUMIHICAST SUPER	CUMICRETE OFC 14
Coke Dry Quenching Unit				
Coke Oven Doors				
Coke Oven Doors (Non-recovery)				



# REFRACTORIES NON FERROUS INDUSTRY

CUMI offer refractory solutions for Non-ferrous metallurgical application (Al, Cu, Zn and alloys) specifically for Aluminium in reduction cell, Melting and holding furnace, Casting process.

APPLICATION GUIDELINES FOR NON FERROUS INDUSTRY	CUMIREX	CUMBOND LS7P	CUMBIND LS 7S	CUMICRETE CA 66	CUMICRETE CII 104	CUMICRETE CK 14	CUMIFRAC A24	CUMIFRAC R1	CUMILAG 26	MIDCAST	PLASCAST	ALCAST EXTRA	ALCAST EXTRA HS	ALBOND	MORBOD AL	CUMILOX K313W	CUMIRAM RA 20M	MORFLOW 165 AL	MORFLOW 165	HIGUN 170	PLASGUN	MORGUN AL	ALPATCH	ALCOAT	FUSED SILICA
<b>Aluminium</b>																									
Reduction Cell Lining																									
Joining Mortar for Cumirex Bricks																									
Joining Mortar between Cumirex Bricks & Steel Plates																									
<b>Melting and Holding Furnace</b>																									
Roof																									
Roof Backup																									
Upper Walls																									
Lower Walls																									
Floor																									
Door																									
Door Jamb																									
Maintenance Gunning																									
Maintenance Gunning																									
<b>Casting Process</b>																									
Lauder																									
Degassing, Filtration and Head Boxes																									
Melting and Holding Furnace Bottom Backup																									
Melting and Holding Furnace Side Insulation																									
Burner Blocks																									
Tapout Blocks																									
<b>Copper</b>																									
Holding and Remelt Furnace																									
Lauder																									
<b>Zinc</b>																									
Retort Lining																									
Distillation Tray																									



## Refractories for Power Generation/ Boiler/ incinerator

### Power



Boiler Prtotection Tube



Deflector



Ceramic Tube Shield



Burner Nozzle



CFBC Boiler



Ceramic Liner



Mechanical Dust Collector

### Refractory Solutions for Power Industries

- High wear resistant Cast NBSiC products for following areas
- Burner Quarl,
- Burner
- Boiler protection tube
- Burner nozzle
- Deflector
- Ceramic Liner
- Mechanical dust collector cone
- Monolithic Lining for CFBC boiler

### Refractory Solutions for Incinerator Industries

- We offer various kind of refractories including phosphate bonded high alumina, Nitride bonded Silicon Carbide, Oxide bonded Silicon Carbide and monolithic products for incinerator industries.

### Thermal Oxidiser



### Refractory Solutions for Thermal Oxidisers

- Hot Face Lining : CUMILOX 101 HB (High purity 99.5%  $Al_2O_3$  bricks & shapes)
- Backup Insulation Lining: CUMILAG B101 (High purity ASTM 34 grade bubble Alumina bricks & shapes)