



SINO GLOBAL

"Partner for Metallurgical & Non-Metallurgical Industries towards Global competitiveness"







About US

Customer Focused Premier Manufacturer & Supplier of

- Engineered Refractory Lining Systems
- Machineries & Equipment's
- Mineral & Metal

SGSSL has the expertise to design, install & maintain a customized solution to improve your productivity, creating value & lowering the over all cost to enhance your competitiveness in the global marketplace.







About US



- Over 25 years operational experience in China
- Penchant for more viable sources
- Own manufacturing facilities for selected items.
- Brand Promise
 - Total Cost of Ownership (TCO)
- Inclusive growth

New Business Development Division







Contents



- Our Approach
- Refractories Division
- Mineral & Metal
- Our Strengths
- Esteemed Customers

Our Approach

Practice Units

Our organization comprises of Specialized Practice Units that work in close coherence to provide comprehensive, cutting edge solutions at your doorstep. These functional units focus on each one of the countless elementary issues which you will encounter in the course of supply. The units have been grouped with an aim to deliver maximum productivity and efficiency to your sourcing exercise.

Sourcing Management Practice Unit

Sourcing as a process is a highly specialized work practice at SGSSL. We source our product from a host of diverse and extensive resources. Our sourcing activities are further divided into technology and industry specific groups.

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Our Approach

Knowledge Management Unit

Our Knowledge Management Unit is responsible for activities such as information acquisition and sharing, identifying the training needs of our employees, designing and conducting training programs to help our workforce stay *au courant* with the most recent trends in the industry. This unit keeps track of latest developments in the fields of technology and sourcing.

Delivery Management Unit

Our Delivery Management unit closely coordinates with our Sourcing Unit, visà-vis customer requirements and deadlines. The unit is instrumental in the prompt delivery, and upholds the quality and accuracy of our assignments by regularly interacting with the customers, securing feedbacks, and acting upon the inputs from our customers.











Our Approach

Relationship Management Unit

We maintain close relationships with our customers and our manufacturing unit throughout all phases of our assignments. Our Relationship Management Practice unit maintains close contacts with our customers through regular discussions and customers satisfaction surveys. We value the feedback and performance evaluations from our customers to continually enhance our service processes.

Channel Partners

To deliver an entire gamut of Supply Services, we have built a network of partners across the global manufacturing hub China. Leveraging our strong network of partner relationships, we source the best product & service and provide our cusromer with unparalleled quality and one stop solution to meet all their Refractory & Non-Refractory needs



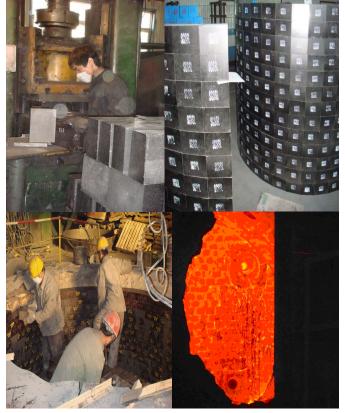












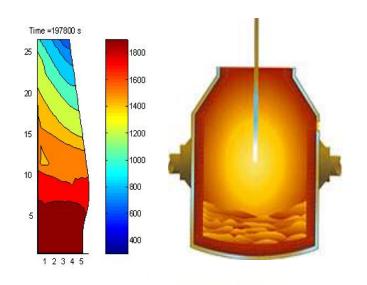
• Our Refractory Division is prime in:

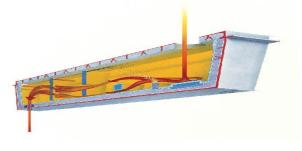
- Providing expert material selection for all type of application
- Resourcing with skilled refractory technicians & engineers to ensure highest quality outcomes.
- Total Solution Provider
 - ✤ Complete range
 - Cost and Quality
 - Engineering design
 - Installation Assistance











Refractory Engineering

- Strategic Alliance with Refractory Engineering Companies for High-End needs.
- Design Management
- Manufacturing & Procurement
 Management
- Typical Project for:
 - Coke Oven
 - Hot Blast Stove
 - Blast Furnace









SGSSL's Scope of Supply

- Coke Oven Refractory
- Hot Blast Refractory
- Blast Furnace Refractory
- Torpedo Car/Hot Metal Refractory
- Hot Metal Mixture Refractory
- Basic Oxygen Furnace Refractory
- Electric Arc Furnace Refractory
- Secondary Metallurgy Refractory
- Continuous Casting Refractory









Coke Oven Refractory

	Fireclay / High Alumina				
Oven top	Silica bricks				
Carbonization chamber	Silica bricks				
Combustion chamber	Silica bricks				
Regenerator wall (upper part)	Silica bricks				
Regenerator wall (lower part)	Fireclay				
Oven sole	Silica / Fireclay				
Oven Flue	Fire Clay & Silica				
Oven Doors	Fireclay bricks or Castables/ Silica (vitrified coating)				
Risers (ascension pipes)	Silica bricks(normal & vitrified coating)				
Semi-silica bricks	Back up lining				
	Jointing mortars				
Misc.	Gunning materials for repair				
	Flame gunning				







Hot Blast Stove Refractory



Dome	High Alumina / Silica bricks
Partition walls	High Alumina / Silica bricks
Checker brickwork	High Alumina / Silica bricks
Misc	Gunning material, Castable, Mortar, Zircon Fibre



Pre-combined tuyere brick



Pre-combined dome brick



Pre-combined checker brick



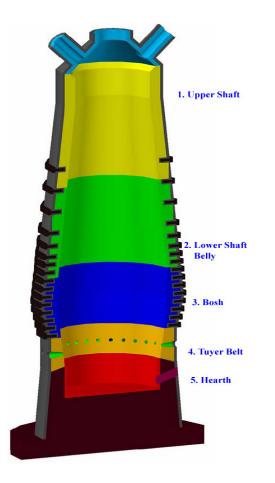


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Blast Furnace Refractory



Stack	Fireclay, High alumina, SiC, Si3N4-SiC
Belly	SiC, Si3N4-SiC,Carbon
Bosh	Si3N4 bonded & SIALON Bonded SiC
Tap hole	Tap Hole clays (Resin bonded & pitch bonded), Al2O3-SiC-C bricks, Al2O3-SiC-Si3N4-C based bricks
Hearth	Carbon blocks(Moulded, Extruded-alumina doped, Silicon doped), High alumina combinations
Tuniona	SIAION bonded SiC bricks and blocks
Tuyere	Cast Copper tuyeres
Trough	Al2O3-SiC-C (ASC) castables







Torpedo Car/Hot Metal Refractory



Mouth	Castables					
Metal Line	ASC bricks (normal and Alumina enriched-ALON + Beta Alumina doped)					
Ceiling	ASC bricks (normal and Alumina enriched-ALON + Beta Alumina doped)					
Impact Zone	ASC bricks (normal and Alumina enriched-ALON + Beta Alumina doped)					
Wear Lining Mortar	Alumina Based					
Safety Lining	Fireclay Bricks					
Safety Lining Mortar	Fireclay based					
	Gunning materials					
Misc.	Insulation materials					
	Mortar					









Basic Oxygen Furnace Refractory

Capability – 2000 MT/month

Have capability to manufacture bricks length up to 1.2 meter.
SGSSL offers techno-efficient system solutions and comprehensive range of services for Basic Oxygen Furnace Refractories.

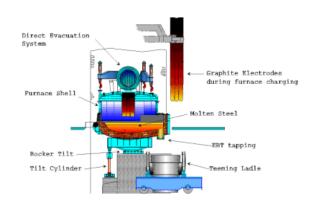
We offer a complete customized range of shaped, unshaped and precast refractories for all kinds of Basic Oxygen Furnaces in practice – Top Blown, Bottom Blown and Combined Blown types.

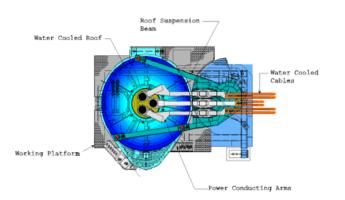






Electric Arc Furnace Refractory







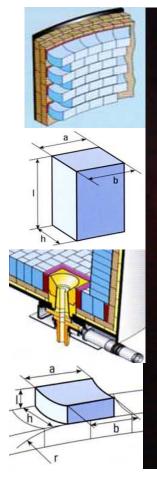
 SGSSL offers techno-efficient system solutions and comprehensive range of services for EAF.

We offer a complete customized range of shaped, unshaped and pre- cast refractories for all kinds of arc furnaces in practices – HP, UHP, DC, Launder Type, EBT Tapping etc.

Our experts work closely with our clients to study their operating conditions and recommend superior techno-economic solutions (Material Selection, Design, Installation, Maintenance, Post-mortem Analysis) to increase the productivity besides optimizing operational processes.







Ladle Furnace Refractory

- Resin bonded magnesia carbon
- Resin bonded aluminamagnesia- carbon refractory
- Magnesia-dolomite-carbon bricks
- Castables for ladles & LF
- 🗞 LF roof castable
- 😵 Backfilling mixes
- Ladle nozzle filling compound
- Ladle casting powder









RH Degasser Refractory



SGSSL & Ampl offers a complete range of high quality zone based refractory solutions for RH Degassing vessels.

We are capable of meeting all requirements for complex vessel geometries.

SGSSL precision products with high performance-price ratio for-

- Snorkels lining
- ✤ Leg
- Bottom
- Lower Vessel
- Intermediate Ring
- Upper Vessel
- ✤ Alloy Chute Region
- Heating Port



- ✤ Gas Duct
- Permanent / Safety Lining
- Snorkel Castables
- Ramming Mixes
- Casting Mixes
- * Mortars
- Sunning Mixes





Tundish Refractory

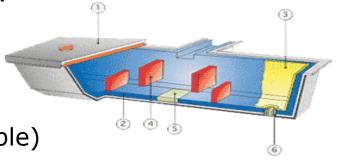
Our range of Tundish Refractories includes:

- Tundish Stoppers
- Castable lining for Cover
- Back up Lining (Castables & Brick)
- Working Lining-(Spraying & Dry Vibratable)
- Tundish Cover Powders
- Dams, Baffles & Weirs , Impact Pads
- Tundish Submerged Entry Nozzles & Submerged Entry Shrouds
- Tundish Well Block
- Tundish Slide Gate Plates
- Tundish Mono Tubes (Ceramic Starter Tubes) and Mono Nozzles (Tundish Nozzles)

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Insulating Boards









Product Range @ a Glance

Coke Oven

- Silica Bricks
- * Mullite, Mullite-silicon Carbide
- Bricks for Dry Quenching

Fire Clav Bricks

Hot Blast Stove

- Silimanite-Mullite & Andalusite –Mullite Bricks
- * Low Creep High Alumina Bricks
- Low Creep Firclay Bricks

BLAST FURNACE

- Sialon Bonded Sillimanite Bricks
- Sialon Bonded Corundum Bricks
- * Fired Micro-hole Alumina-Carbon Bricks
- * Corundum-Mullite Bricks
- Dense Alumino-Silicates 40 to 95% Alumina
- ✤ Bricks Silicon Carbide Sialon, Nitride & Silicate Bonded
- ✤ BF cast house refractory Tap Hole Clay, Trough Mix







Product Range @ a Glance

Hot Metal Ladle

Alumina Silicon carbide carbon series

Basic Oxygen Furnace

- Magnesia Carbon Refractory Zone wise Lining Concept & capable to supply up to 1.2 meter bricks
- * TAP Hole Sleeves, Tap Hole Block Supply in loose as well as assembled
- * All kind of Monolithics.
- Slag Conditioner

AOD Furnace

Magnesia Carbon Bricks
Mag-Chrome Bricks
Dolomite Bricks
All type of Monolithics







Product Range @ a Glance

Electric Arc FURNACE

- Magnesia Carbon Bricks Hot Spot, Slag Line, Cold Spot
- EBT TAP Assembly Inner Sleeve, Outer block, end block
- Ramming Mass

Ladle Furnace

- ✤ Magnesia Carbon Bricks- Slag Zone, Metal Zone, Bottom, Free board.
- Alumina-Magnesia-Carbon Bricks Metal Zone, Bottom, Impact Pad.
- All kind of monolithics.

Continuous Casting Refractory

- ✤ Slide Plate
- Collector Nozzle
- Inner Nozzle
- Purging Plug
- Ladle Shrouds



- Mono Block Stoppers
- Dams, Baffles & Weirs, Impact Pads
- Submerged Entry Shrouds
- Tundish Submerged Entry Nozzle
- Tundish Well Block





Achievements











Ferro-Alloys

As part of the steel production process, ferro alloys are added to the usual mix of raw materials to alter the chemistry as required for certain end uses. Ferro alloy trading is very much a function of specific mill demands depending on their finished product mix.

Ferro Molybdenum Manganese Metal Ferro Chrome Ferro Silicon Ferro Vanadium Ferro Tungsten Ferro Phosphorus Silicon Barium



Molybdenum Oxide Chrome Metal Ferro Manganese Ferro Titanium Ferro Boron Ferro Niobium Silicon Calcium Silicon Manganese







Fluorspar

Fluorite (fluorspar): Used in production of hydrofluoric acid, which is used in the electroplating, stainless steel, refrigerant, and plastics industries, in production of aluminum fluoride, which is used in aluminum smelting, as a flux in ceramics and glass, in steel furnaces, and in emery wheels, optics, and welding rods.

> Type: Lumps Powder Ball









Aluminum

- Aluminum Foils
- Wire (9.5-16mm)
- Cones & Shots
- Al Ingot

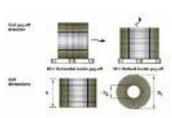








- Ca-Fe
- Ca-Si
- Ca-Fe-Al
- C, B, S
- Fe-Mn
- Tailor Made















Coal & Coke

Raw Petroleum Coke
Calcined Petroleum coke
Metallurgical Coke
Amorphous Graphite
Natural Graphite











LEAN COAL











Chemicals

- Caustic Soda Flakes 96-99% (NaOH)
- Ammonium Sulphate (NH4)2SO4
- Sodium Chloride (NaCl)
- Potassium Carbonate (K2CO3)
- Potassium Nitrite (KNO2)
- Phosphoric Acid (H3PO4)
- Dimethyl Carbonate (C3H6O3)
- Propylene glycol (C3H8O2)



























Our Strengths

* Comprehensive Range of high quality premium grade refractory material at competitive price .

*** Extensive experience of China Refractory Market**

 Excellent understanding of Chinese Refractory Manufacturer

 Access of lowest cost refractory without compromise to highest quality

* Quality consistency







Esteemed Customer

✤ALGOMA STEEL INC, ONTARIA, CANADA ALTOS HORNOS DE. MEXICO(AHMSA) *ACINOX COMMERCIAL S.A. CUBA ✤AFRICAN COMMODITIES DMCC, UAE ♦ BHILAI STEEL PLANT, SAIL INDIA *****BHUSHAN POWER & STEEL LIMITED , INDIA CIDER AI GERIA ✤DURGAPUR STEEL PLANT, SAIL INDIA ♦ EGYPTIAN IRON & STEEL CO. LTD EGYPTIAN COPPER LTD , EGYPT. ✤FIELD FURNACE REFRACTORY ,AUSTRALIA ♦ GEO STEEL ,GEORGIA ✤IISCO ,BURNPUR,SAIL -INDIA









Esteemed Customer

✤JINDAL STAINLESS LTD ,INDIA ✤JINDAL STEEL & POWER LTD, RAIGARH. ✤JINDAL STEEL & POWER LTD, ANGUL. ♦JSW, INDIA ♦ L & T, GUJRAT, INDIA MUKUND LIMITED, INDIA ♦ NALWA STEEL & POWER LTD. INDIA ✤NALWA STEEL & POWER LTD , INDIA SYDNEY FIRE BRICKS LTD, AUSTRALIA **SUN-FLAG IRON AND STEEL CO** ✤TATA BSL LTD ,INDIA *****UTTAM GALWA METALICS LTD, INDIA









- * TATA BSL (formerly know as Bhushan Steel Ltd) Achieved 127 heats (Steel Ladle) calculated .
- ✤ JSPL (Raigarh) Achieved 175 heats Steel Ladle.
- * Replaced AMC by our MAG-C quality in Arcelour Mittal Temirtau and JSPL Raigarh .
- Achieved worlds highest life in Steel Ladle with MAG- C lining of 192 heats surpassing OUR VERY OWN RECORD of 191 Heats in Rourkela STEEL PLANT .
- IISCO : Increase in life of Steel Ladle from 27 heats to 65 Heats. (With an maintained average of 52.4 in execution of 100 Sets Supplied by Sino Global).
- Bhilai STEEL PLANT : Continuous supply of RH-D Refractory since last 6 Years, increasing the Target life from 100 Heats to 130 Heats. Highest achieved life of 181 Heats in RH-D TRM Basis.
- ✤ JSW (Bellary) Highest performer in RH- Degassing Refractories Unit
- ◆ JSPL (Raigarh) Highest Performer in RH Degassing Refractories Unit .







JSPL- Raigarh (Ladle Performance report

SHOP	Ladle	Mid Repair (S/Z)	LIFE	Calcul ated Life	Total Purging Time (minutes)	Bottom Lining condition	Slag zone lining condition	Metal Zone lining condition	LOT (Min.)	Remarks
SMS II	1 .	70	131/61	161.5	15040	Good	Weak	Weak	S/z 0 mm	Heavy metal penetration between Safety & working lining. S/Z brick came out @ 48 heats
SMS II	4	71	131/60	145	13680	Good	Weak	Good	S/z 50 mm	Normal Down
SMS II	10	53	97/44	123.5	14960	Good	Weak	Weak	S/z 0 mm	S/Z brick came out
SMS II	14	75	150/75	166	13815	Good	Weak	Good	S/z 30 mm	Normal Down
SMS II	17	60	142/82	164	7395	Good	Weak	Good	S/z 0 mm	Red Spot in S/Z & brick came out
SMS II	18	74	139/65	158.5	15070	Good	Weak	Good	S/z 50 mm	Normal Down
SMS II	21	68	139/71	170.5	14302	Good	Weak	Good	S/z 30 mm	Normal Down
SMS II	22	75	122/47	148.5	13815	Good	Weak	Good	S/z 60 mm	Normal Down
SMS III	12	73	122/49	150	11450	Good	Weak	Weak	M/z 0 mm	2nd layer Metal Zone brick came out.
SMS III	10	58	110/52	134.5	9870	Good	Weak	Good		Ladle declared down @ 110/52 heats due to erosion in slag zone.

1. Bottom was exceptionally good which results the saving of 10-15 bricks in every mid repair

2 There metal zone & slag zone is weak & reliable from 60 (Mid repair/1st phase) & 50 hts in the 2nd phase. Total life 110-120 seams to be safe as on date. Which is equivalent to 140-145 calculated life.

Shop situation will be under control when new vendors are used with some proven vendors.

Due to non availability of sets & shop situation, we were compelled to take 3 nos ladles for second repair on condition monitoring basis w.r.t lining potential. The extra life obtained after this repair was not considered.

However in our considered opinion they may improve up to our expectation through extended trial

27/07 S Koush

2717113 N A Khan

1.07.13 (1- TLDO)27.7.13 LN Deo Sino Globa









STEEL AUTHORITY OF INDIA LIMITED ROURKELA STEEL PLANT									
SHOP NAME : SMS - II MONTH : MAY - 2019									
MONTHLY CERTIFICATE TO BE ISSUED BY THE SHOP INCHARGE FOR FACILITATING PAYMENT FOR LADLE									
	1) CERTIFICATE SL.NO : 06/SGL-AMI/1772000053 DATED : 01/ 04/ 2019								
 2) P.O. NO.: 1800500053 DATED 05/07/2018 -M/s. SGSSL 1800500054 DATED 05/07/2018- M/s. AMI 3) NAME OF THE SUPPLIER : M/s. SINO GLOBAL SOURCING & SUPPLY LTD. M/s. AARYA METALLURGICALS (INDIA). 4) MINIMUM GUARANTEE LIFE/ THRESHOLD LIFE : 120 / 85 5) OTHER DETAILS TO BE FURNISHED : Order Oty 22 Sets 									
MATURED CAMPAIGN LIFE	MEETING MIN	GUARANTEE / BEL	OW MIN. GUARANTEE.						
SL. LADLE DATE OF NO. NO. START OF CAMPAIGN	DATE OF COMPLETION OF CAMPAIGN	CAMPAIGN LIFE	LIFE REMARKS : REASONS FOR TERMINATION OF CAMPAIGN, IF ANY.						
1 1 21.03.2019	21.05.2019	191	POOR OVERALL LINING.						
INITIATED BY : SIGNATURE NAME DESIGNATION DATE : (DSH M. (REFYS.)	SIGNATUF NAME DESIGNAT DATE	: L.MURMU						
<u>CC TO :</u> 1) FINANCE (PAYM 2) PURCHASE 3) SUPPLIER COPIES 4) PERF.FILE		APPROVED BY : SIGNATURE NAME DESIGNATION DATE : ONKAR NATH : G.M.,(REFYS.) : ()							





SGSSL China





Rourkela Steel Plant creates new record in Steel Ladle life

PBD BUREAU

ROURKELA, OCT 12

ROURKELA Steel Plant (RSP) has created a new record in Steel Ladle Life in Steel Melting Shop-II department. The ladle life is not only highest in SAIL but also the best ever life achieved in India with Magnesia Carbon Bricks. The plant scripted this record by clocking the highest ever Steel Ladle Life of 192 heats in a single campaign surpassing the earlier best Steel Ladle Life of 191 heats achieved in May 2019.

The steel ladle management set was supplied by Sino-Global Sourcing & Supply Ltd. The Ladle was taken down for relining on Friday. The significant achievement was made possible because of the dedicated and coordinated efforts of Refractory



Engineering (Services) and Steel Melting Shop-II (Operation).

Notably, the Steel Ladle was due for slag zone repair on September 16, 2019 at 152 life. During inspection of the Ladle by **Refractory** Department it was found that the metal zone condition of the ladle was in good shape and the metal zone left over thickness was found to be in excess of 130 millimetres. Considering the potential of the Ladle, the team Refractory Engineering decided to continue the ladle in service with slagzone repair. The ladle had a

guaranteed life of 120 heats. Under the guidance of Onkar Nath, CGM (Refractory), the Refractory collective carried out the slag zone repair and monitored the ladle with utmost care to achieve the record lining life of the Steel ladle.

The endeavor ensured intangible benefits of enhanced Ladle availability and improved productivity. The effort is one amongst many such initiatives being undertaken by the enterprising RSP collective to reduce cost of production and further improve techno-economics of the steel plant.





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Thank You for Your attention!!

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