LONG KETER
REFRACTORIES

2025

TUNDISH REFRACTORIES

PRODUCT CATALOG

Zibo Long Keter New Materials Co.Ltd.

ABOUT LONG KETER

Based in Zibo,China P.R.,which is located in the center of Shandong Province,famous for its heavy industry,particularly in CERAMIC & REFRACTORIES manufacturing. Keeping the concept "Make Energy Efficiency Simpler" in mind, striving to be the most reliable supplier in REFRACTORY and INSULATION material industry worldwide, years of non-stop innovation and team-working transformed us to be now a leading supplier of refractory and insulating materials in this field.

LONG KETER committed to developing and manufacturing high quality products for its customer. Customers accept our products at first, then gradually getting fond of them, and finally they find that they have already relied on them. Up to now,we have established cooperative relationships with many Giant Companies in refractory field.

We are continue to serve all of our customers with best products and services.We are always on the road and never stop!

ZIRCONIA INSERTS

LONE KETER supplying a comprehensive range of zirconia inserts mainly used in continuous casting of steel billets.The inserts, which was known as LKZN series, is magnesia stabilised & high density,can impart excellent erosion resistance even in the most severe casting environments. Consistent casting speeds are achieved and the products have a high resistance to oxygen lancing.

Key Features of LKZN series are

- Extended casting sequences
- Controlled and consistent casting speeds
- High resistance to oxygen lancing
- More consistent re-stranding

Product Data

	LKZN-L	LKZN-M	LKZN-H
Physical Properties			
Apparent Porosity (%)	11-12	8-10	6-8
Bulk Density (g/cm^3)	≥4.9	≥5.2	≥5.3
Chemical Analysis(%)			
$ZrO_2 + HfO_2$	≥94.0	≥95.5	≥96.0
SiO_2	1.1	0.23	0.5
TiO_2	0.2	0.2	0.1
Fe_2O_3	0.5	0.05	0.05
Al_2O_3	0.4	0.42	0.1
CaO	0.2	0.15	0.15
MgO	2.5	2.4	2.4
Na_2O	0.03	0.01	0.01

TUNDISH METERING NOZZLES

Upper nozzle(Stationary nozzle) is located within the tundish lining and conveys steel to the controlling exchangeable nozzle, which determines the steel flow. The stationary nozzle must be capable of withstanding long sequence times.Our Upper nozzle that incorporates a ultra-high densityLKZN-M or LKZN-H insert. The insert provides excellent erosion resistance and can provide extended casting sequence times.The lower surface of the stationary nozzle is ground to exacting tolerances to ensure maximum surface contact between the two nozzle components.
Lower Nozzle (EXCHANGABLE) is located within an assembly that is fixed to the bottom of the tundish.The design of the exchangeable nozzle can vary according to the system manufacturer. We supplying a range of zirconia inserts and composite nozzle designs for the exchangeable metering of steel. Zirconia inserts can be supplied for on-site assembly into metallic holding blocks where cementing, grinding, size banding and on site drying are required prior to use.
It was manufactured by both cast process of fine grained alumina method or prese process.
Our nozzles suitable for several nozzle changer systems listed as below

- Concast - CNM
- Danieli - FNC
- Interstop - MNC
- Krosaki – OTNC
- Vesuvius – CNC/SYS120

Product Data

	Zirconia Inserts			Tundish Nozzle Outer		
	LKZN-L	LKZN-M	LKZN-H	LKTN75	LKTN85	LKTN90
Physical Properties						
Apparent Porosity (%)	11-12	8-10	6-8	20	18	16
Bulk Density (g/cm^3)	≥4.9	≥5.2	≥5.3	2.6	2.8	3.0
Chemical Analysis (%)						
$ZrO_2 + HfO_2$	≥94.0	≥95.5	≥96	/	/	/
SiO_2	1.1	0.23	0.5	20	13	8
TiO_2	0.2	0.2	0.1	3	2.1	0.3
Fe_2O_3	0.5	0.05	0.05	2.5	2.0	0.58
Al_2O_3	0.4	0.42	0.1	≥75	≥85	≥90
CaO	0.2	0.15	0.15	0.2	0.1	0.20
MgO	2.5	2.4	2.4	0.2	0.1	0.06
Na_2O	0.03	0.01	0.01	0.6	0.5	0.3

SLIDING GATE PLATE

Product Data

	LKZSGL	LKZSGH
Physical Properties		
Apparent Porosity (%)	10-11	8-10
Bulk Density (g/cm^3)	≥5.0	≥5.2
Chemical Analysis (%)		
$ZrO_2 + HfO_2$	≥95.0	≥95.5
SiO_2	0.23	0.23
TiO_2	0.2	0.2
Fe_2O_3	0.05	0.05
Al_2O_3	0.42	0.42
CaO	0.15	0.15
MgO	2.4	2.4
Na_2O	0.01	0.01

LONG KETER supplying a range of high density zirconia plate inserts, which are used within sliding gate plate applications. Zirconia Sliding Gate Plate Inserts are an excellent solution to increasing the life of sliding gate plates. When the plate become worn, the worn material can be removed and a high density Zirconia Plate insert can be cemented/cast in its place, therefore extending the life of the sliding gate plate. Long Keter offers two material grades for sliding gate plate inserts:

- LKZSGL - High hot strength with increased thermal shock properties.
- LKZSGH - High strength, abrasion resistant with erosion resistant properties

Key Features of Zirconia Sliding Gate Inserts are

- Excellent erosion resistance
- Dimensionally accurate, with a smooth surface finish
- Ability to make custom made plate insert designs

ATOMISING NOZZLE

LONG KETER supplying a comprehensive range of Atomising Nozzle to Powder metallurgy. Powder metallurgy is a cost effective process despite the convoluted manufacturing route of deconstructing the starting material, utilising the atomisation process, and then reconstructing the product in separate forming and heating stages. And then, there are the immiscible mixes with unique properties that couldn't be made any other way.In the atomisation process, nozzles controlling the flow of molten metal from the crucible whilst being bombarded with a high pressure jet of air, inert gas or water.A principle feature of all the nozzles is their close dimensional accuracy, which promotes stable flow characteristics under the most arduous conditions.

Product Data

	LKZN-L	LKZN-M	LKZN-H
Physical Properties			
Apparent Porosity (%)	11-12	8-10	6-8
Bulk Density (g/cm^3)	≥4.9	≥5.2	≥5.3
Chemical Analysis (%)			
$ZrO_2 + HfO_2$	≥94.0	≥95.5	≥96
SiO_2	1.1	0.23	0.5
TiO_2	0.2	0.2	0.1
Fe_2O_3	0.5	0.05	0.05
Al_2O_3	0.4	0.42	0.1
CaO	0.2	0.15	0.15
MgO	2.5	2.4	2.4
Na_2O	0.03	0.01	0.01

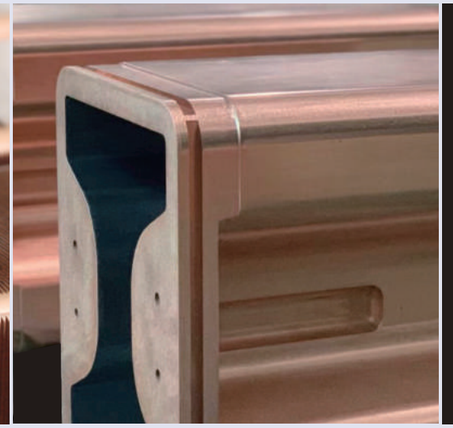
COPPER MOULD TUBE

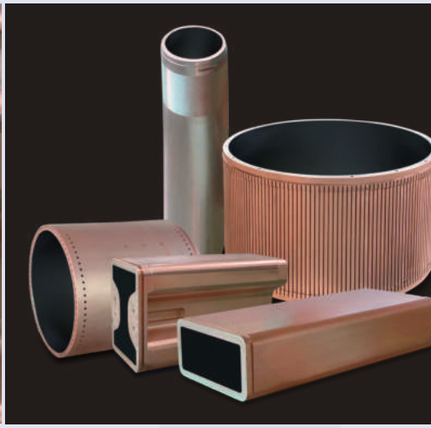
Crystallizer copper tube is used for continuous casting of molten steel on the mold, used for the production of billets and so on. In this production process, molten steel is transformed from a liquid state into a solid form of a billet

Product Data

NAME	SIZE	CAMBER RADIUS	THICKNESS	LENGTH	REMARKS
Square & Rectangle Copper tubes	Square 50×50-650×650 Rectangle (100-500) ×650	3000-17000 Also straight	6-50	602-1100	With slot single taper,double taper,triple taper,quadruplicate taper.parabolic taper and various kinds of continuous taper high effciency copper mould tubes
Round copper tubes	110-1500	5000-17000 Also straight	10-50	602-900	With slot double taper, quadruplicate taper, parabolic taper and various kinds of continuous taper high efficiency copper mould tubes
Non-standard copper mould tubes Beam Blank copper mould tubes	535-150×120-70	6000-14000	12-50	700-1016	With slot single taper, double taper, triple taper, quadruplicate taper, parabolic taper

Remark : Material--TP2 (GB/T5231-2001)=SF-Cu/DHP-Cu(DIN1787)





LONG KETER®

REFRACTORIES

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