



TOKYO BOEKI MATERIALS LTD.

Refractory Products Catalog



Corporate Profile

Head Office	Tokyo Boeki Materials Ltd. 28F KYOBASHI EDOGRAND 2-2-1 Kyobashi, Chuo-ku, Tokyo, 104-0031, Japan TEL : +81-3-6841-8100 FAX : +81-3-6841-8106
Established	October 1, 2006
Capital	400 million Yen
Main Financing Banks	MUFG Bank, Ltd., Head Office Mizuho Bank, Ltd., Kabutocho Branch
Shareholder	Tokyo Boeki Holdings Corporation(100%)

About our “Tokyo Boeki Group Associated Management”

This is a group management system similar to a solar system, tailored to the needs of customers by specialized strength of each company and synergetic combined strength of the group company while making the overall group more competitive and increase its presence. Each business division and group company develops individually but shares common management principles, values and aspirations.

Global network of Tokyo Boeki Materials Ltd.



● Network in China

- [Affiliate]**
TOKYO BOEKI (CHINA) LTD.
- [Branch Office]**
 - Shanghai Branch Office
 - Beijing Branch Office
- [Office]**
 - Jinan Office
 - Shenyang Office
 - Yangquan Office

● Tokyo Boeki Materials Ltd. Sales office network in Japan

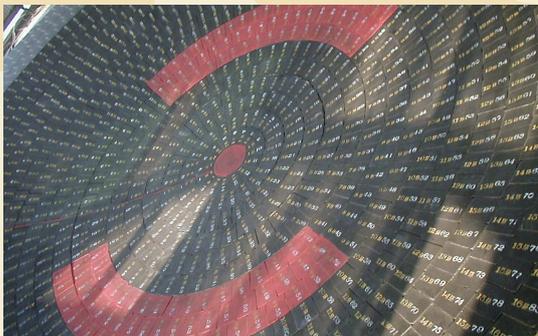
- [Kanto Region]**
 - Keihin Sales Office
 - Kashima Sales Office
 - Chiba Sales Office
 - [Chugoku Region]**
 - Kurashiki Sales Office
 - Fukuyama Sales Office
 - [Kansai Region]**
 - Wakayama Sales Office
 - [Kyushu Region]**
 - Kyushu Office
- Map labels for sales offices in Japan: Kyushu, Wakayama, Fukuyama, Kurashiki, Tokyo, Keihin, Kashima, Chiba.

History of Refractory Business

- 1947 Tokyo Boeki Shokai, a predecessor of Tokyo Boeki Ltd. established.
- 1957 Changed company name from Tokyo Boeki Shokai to Tokyo Boeki Ltd.
- 1986 Started marketing Chinese refractory products to Japanese special steel manufacturer.
- 1987 First supply contract of the high alumina bricks with special steel manufacturer was made, and also started supply to integrated steel mills.
- 1988 First contract was made with major steel mills for supply of the high alumina bricks.
- 1991 Increasing interest of Chinese refractory products among Japanese steel mills, due to their cost reduction policy and appreciation of Japanese yen.
Supplied variety of refractory brick samples to steel mills using both Blast Furnace & Electric Furnace.
- 1993 Our Chinese import refractory product quantity exceeds 10,000 MT pa.
- 1994 Our Chinese import refractory product quantity exceeds 20,000 MT pa.
- 1995 Founded Jinan Lu Dong Refractory Co., Ltd., a joint venture company, in Jinan, Shandong Province, China, for production of the MgO-C refractory bricks.
Started to supply its products to the Japanese steel industries and contributed to the cost reduction. Established a new branch office in Kurashiki.
- 1996 Founded Shangyu Dongshun Refractory Co., Ltd., a joint venture company, in Shangyu, Zhejiang Province, China, for production of the ASC refractory bricks.
- 2001 Founded Tomas Trading (Shanghai) Co., Ltd. (now Tokyo Boeki (China) Ltd.).
Our Chinese import refractory product quantity exceeds 30,000 MT pa.
- 2002 Founded Tomas (Tianjin) International Trade Co., Ltd. (now Tokyo Boeki (China) Ltd.).
Established a new branch office in Wakayama.
- 2003 A major refractory manufacturer made an equity participation in Jinan Lu Dong Refractory Co., Ltd., China, to significantly beef up the manufacture and sale of its refractory bricks.
Our Chinese import refractory product quantity exceeds 40,000 MT pa.
- 2004 Established a new branch office in Fukuyama.
- 2005 Founded Tokyo Boeki (Beijing) Co., Ltd., a local corporation with 100% investment by Tokyo Boeki, in China for integration of the steel-making refractory business.
This allows independent business operations in the Chinese market and an expansion in the sale of refractory products and other business.
- 2006 Founded Tokyo Boeki Steel & Materials Ltd. by spinning off from Tokyo Boeki Ltd.
- 2007 Established a new branch office in Chiba, Keihin and Kashima.
- 2009 To enhance our business basis and adopt expansion of our business field in China, reformed our major subsidiary in China from Tomas Trading (Shanghai) Co., Ltd. to Tokyo Boeki (China) Co., Ltd.
- 2013 Established a new branch office in Kyushu.
- 2017 Tokyo Boeki Steel & Materials Ltd. changed its name to "Tokyo Boeki Materials Ltd." and our head office moved to Kyobashi from Hachobori.

● Magnesia refractory

< Magnesia-Carbon bricks >



Application example :

- Electric arc furnace lining
- Basic oxygen furnace lining
- Ladle lining

Functions:

Magnesia-carbon bricks has high slag corrosion resistance and high spolling resistance.

It is mainly used at secondary refining such as BOF for de-carbonate.

We are cooperating with Jinan Ludong Refractory Co., Ltd as the joint venture company specialized in magnesia-carbon bricks.

it has 70 thousand ton of annual production. And supply to not only Chinese domestic market but also to all over the world such as Japan.

We supplies all variety of magnesia carbon bricks to Japanese major mills BOF and ladles

For EAF, we have supply achievements for hi-carbon products. We have confidence for the quality and variety of our products.



< Alumina Magnesia Carbon bricks >

Application example :

- Electric arc furnance metal line, bottom lining

Functions:

high slag corrosion resistance and high spolling resistance.

Comparing to magnesia-carbon bricks, Alumina magnesia carbon bricks has more high spolling resistance. and also has the joint wear prevention. So that it is mainly used at metal line and bottom of ladle.



< Magnesita bricks >

Application example:

- Electric arc furnance back-up
- Basic oxygen furnance back-up
- Ladle back-up

Functions:

Magnesita bricks is the basic refractory and has high refractoriness it has high basic slag corrosion resistance.

It is mainly used for back-up lining of magnesita carbon bricks.

We have long history of supplying.



< Magnesita-Chrome bricks >

Application example:

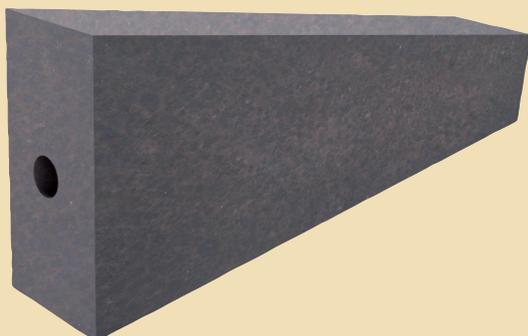
- RH degasser
- Ladle for stainless steel
- Furnance for nonferrous metals
- Electric arc furnance metal line, bottom
- Firing furnance

Functions:

There is no strength deterioration at intermediate temperature and excellent volume stability at high temperature.



< Dolomite bricks >



Application example:

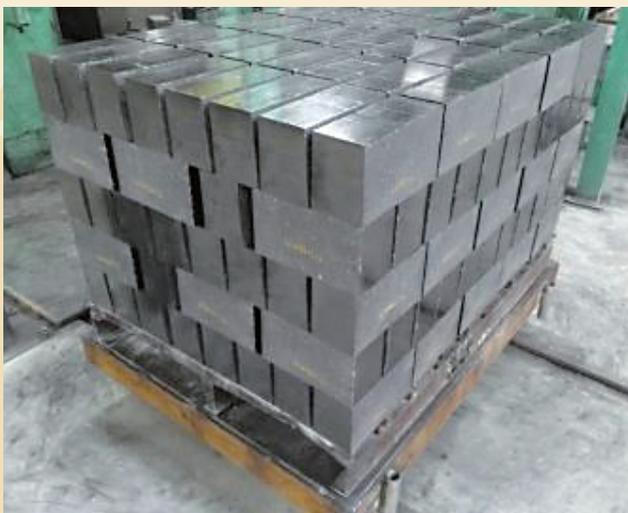
- VOD ladle lining
- AOD ladle lining

Functions:

Dolomite bricks has high slag corrosion resistance. It is used for refractories with no carbon pickup steel refining.

We have the line up for unbured and burned types of bricks.

● Alumina-SiC-Carbon bricks



Application example:

- TPC lining
- Hot metal ladle lining

Functions:

It is mainly used for TPC, hot metal lining.

We can provide all variety of specifications to satisfy customer's demands.

● Alumina silica refractory

< Fireclay bricks >



Application example:

- Hot-blast stove
- Cokes oven,
- Firing furnace
etc...

Functions:

General-purpose bricks made of chammote. It is used in various furnace.

We supply standard to special types of fireclay bricks



< Hi-Alumina bricks >



Application example:

- CDQ
- Hot-blast stove
- Ladle
- Cement kiln
- Firing furnace
- etc...

Functions:

It contains Al_2O_3 45% or more.
It has a mass production volume equal to fireclay bricks used various furnace.
Used for high refractoriness use.

< Silica bricks >



Application example:

- Hot-blast stove
- Cokes oven
- Glass melting furnace
- etc...

Functions:

It is acid refractories based on silica.
We supply inexpensive general silica bricks, high creep resistance bricks, fused silica based low thermal expansion bricks for maintenance.

< Pyrophyllite bricks >



Application example:

- Hot metal ladle
- Ladle

Functions:

Pyrophyllite bricks are pyrophyllite and kaolin mineral based refractories.
Good densification and provide close structure.
High steel corrosion resistance due to forming high viscosity glass coating in use.

We also has a line up of Pyrophyllite- SiC adding silica-carbon.

Other refractories

< SiC bricks >

Application example:

- Blast furnace
- Reduction firing furnace sugar bricks
- Incinerator

Functions:

High thermal conductivity and resists spalling, abrasion, acid slag.



< Insulating fire bricks >

Application example:

- Many kinds of furnace lining

Functions:

Low thermal conductivity.
Special refractories having both thermal properties and mechanical properties as structural materials.



< Spinel bricks >



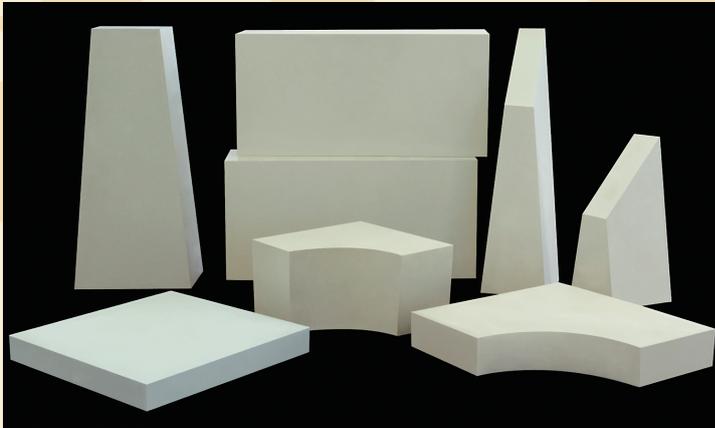
Application example:

- Cement rotary kiln
- RH digasser

Functions:

Non chrome refractories due to demand of environment friendly.
We also have a line up for magnesia spinel bricks adding magnesia clinker.

< Acid resistant bricks >



Application example:
-Acid treatment
-Acid collect facilities

Functions:
It has strength and resist acid liquid or gas.

●● Monolithic refractory

< Precast block >



Use in all kinds of furnace and facilities.
Our domestic and oversea supplier network can fulfill customer's suggestion.

We are supplying Alumina,magnesia, fireclay material blocks.

Application example:
-Cokes oven
-EAF covers
-Ladle bottom impact plate
-TD dam
-Lance pipe
-RH snorkel
etc...

Functions:
Precast block can manufacture large items therefore it improves construction efficiency.
Heating is much more easier than casting.



< Castable, Gunning material, Repairing material, Stamping material >



We can propose to customer's usage.

Material:

- Alumina
- Magnesia
- Magnesia chrome
- Magnesia carbon

Functions:

- Cokes oven
- Blast furnace
- EAF
- BOF
- Ladle
- TD
- etc...



Repair material for BOF, we product and supply as our product brand.

Laser measurement for residual thickness

Leica Geosystem has top share of the market. They have technology and achivment for laser scanner. Our group company TTS(TOKYO BOEKI TECHNO-SYSTEM LTD.) support with software customizes.

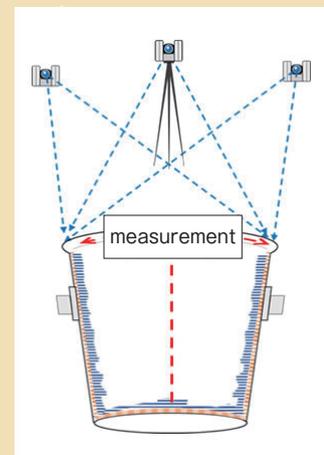
Application example:

- EAF
- BOF
- Ladle

Other furnace which need to measure residual thinkness.

Functions:

- 1 High speed scanning with time of flight method
- 2 High accuracy 1.2mm able to scan from 40m distance
- 3 Potable(scanner and pc for default)
- 4 Easy to use
- 5 Operate with Lithium ion battery (5.5h maximum for two internal batteries)
- 6 IP54 standard(high dustproof and waterproof)
- 7 Operate in extremely hard temperature circumstance (-20°C to 50°C)
- 8 Scan the object from several points. Combine scanned 3D data comparing with intial data, calculate residual thikness of the object.





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URL:<http://www.tokyo-boeki-materials.co.jp>

