



TOYO TANSO
Inspiration for Innovation

Company Profile

Corporate Philosophy

Continuing to take on new challenges as a pioneer of carbon

Found widely throughout the natural world, carbon has been used by humankind since antiquity. The Toyo Tanso group was one of the first to eye the infinite potential of carbon. Based on the basic philosophy of manufacturing completely novel products and services, which we have held since our inception, we have taken on the challenge of pursuing unique and innovative carbon products specialized for highly functional fields. Our products and technologies are now being used in a variety of fields from domestic spaces to cutting-edge fields such as environment, energy, aerospace, and medical care. Despite this widespread use, however, the potential of carbon is still largely unknown. By combining it with different materials and exploring other uses, the roles that carbon plays and the fields in which it is applied are likely to witness further expansion in the future. As both a pioneer of carbon and a company that is serious and passionate about taking on new challenges, we aim to be a widely loved firm that is capable of making a wide range of contributions to society based around the development of new carbon materials. To achieve this goal, we will focus our unwavering passion on mastering carbon and creating commercial applications of completely unique materials, and will strive to provide the same high level of quality, price, delivery times, and technical service the world over.

With our insatiable appetite for new challenges and commitment to ongoing progress, you can expect great things from the future of the Toyo Tanso group.

Inspiration for Innovation

Our corporate slogan encapsulates the spirit of the Toyo Tanso group, which has been passed down unbroken since our inception.

BRAND CONCEPT

BRAND VISION

[Vision what we are aiming for]

We will enrich daily life and society by contributing to technological development.

BRAND PROMISE

[What we promise our customers and society]

We promise to continue to meet the trust and expectation placed in us by society without forgetting our pioneer spirit of manufacturing completely unique products.

BRAND VALUE

[What we will provide to our stakeholder]

We will be ahead of the pack in supplying the quality and technologies that form the foundations of a variety of industries and products and make the impossible possible.

BRAND PERSONALITY

[Our behavior and our view of the world]

Integrity
Challenging
Never Give Up

Unique
Passionate
Humanity



Representative Director Chairman & President (CEO)
Naotaka Kondo

Fundamental philosophy and Management policies

**The TOYO TANSO GROUP contributes
to the world through the pursuit of the
possibilities inherent in carbon (C).**

- 1** With the raising of the level of customer satisfaction constituting the predominant theme of management, we shall aim to provide optimal levels of quality, delivery times, costs, and services and engage in corporate activities accordingly.
- 2** Through carbon technologies, it is our goal to be a constantly growing, future-oriented corporate group highly trusted by shareholders and the general public.
- 3** We are committed to building a rewarding workplace that respects the independence and creativity of employees, encourages employees to have goals, and permits fair evaluations.
- 4** Based on compliance with laws and social norms, we shall observe public order as well as contribute to society through conscientious and fair corporate activities.
- 5** We shall aim to coexist in a state of consonance with people, carbon technologies, and the natural environment and engage in corporate activities that will contribute to the conservation of the global environment.

Core competence

DNA that encourages competitiveness

First company worldwide to achieve mass production of isotropic graphite

Having pursued ideal quality and conducted extensive research and development as a specialized manufacturer of high-function carbon, in 1974, Toyo Tanso became the first company in the world to successfully mass produce isotropic graphite. Since that time, our products have been supporting domestic life and industrial infrastructure in various fields.

A leader in high-function carbon

Backed by state-of-the-art facilities that provide some of the world's largest-scale production capacity, business fields covering a wide-range of arenas, and proprietary, one-of-a-kind technologies, we have established an unshakable position as a leader in high-function carbon.

Why our clients love working with us

Positioning a customer-first, quality-first approach as the foundation of our business, we continue to respond to the trust of our customers through a production system incorporating state-of-the-art facilities, a global network that spans the entire world, reliable technologies that anticipate next-generation advances, and new proposals based on our expansive knowledge.

Diverse and reliable proposal-development capabilities

We offer a range of technical services including product design, analysis, and inspection. Based on a flexible approach, and the extensive data we have accumulated from our expansive knowledge, we strive to solve problems and offer new proposals that accurately and rapidly incorporate your needs.

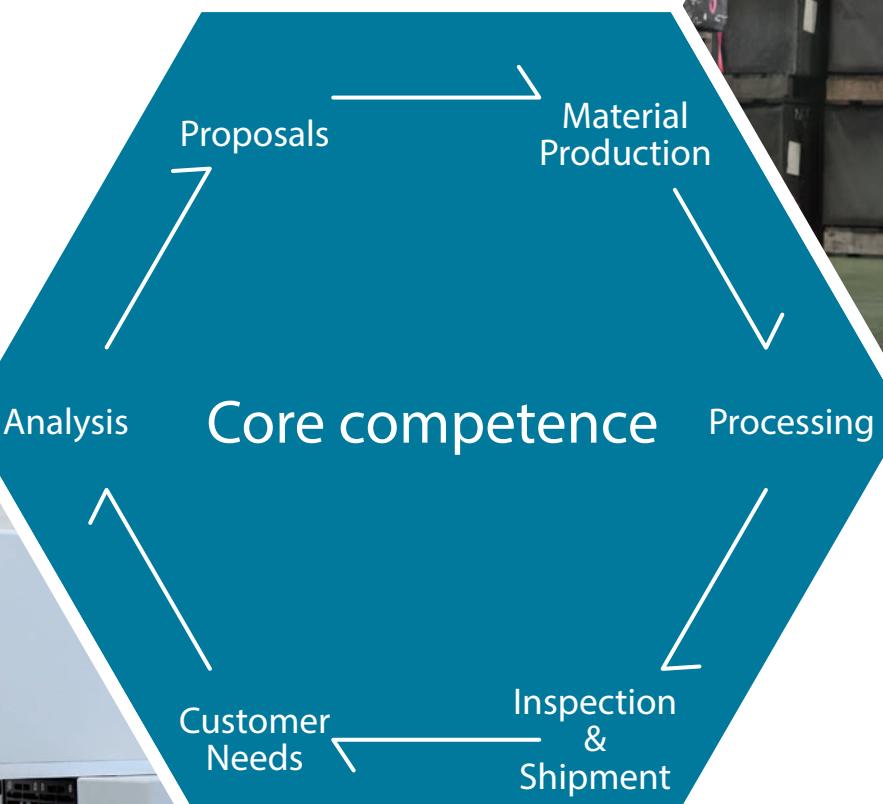
Continuously evolving technical capabilities

As new technological advancements are made and new needs for carbon are discovered, we have worked to anticipate future developments, ensuring that our technical capabilities have continuously evolved. In addition to leveraging these capabilities to create new materials and develop new applications, we will foster a new era by focusing on developing engineers to support the next generation.





Customer Solutions



Product Strength

World-class product competitiveness

Carbon applications continue to expand from electronics and general industry into cutting-edge fields such as nuclear power and aerospace. To keep pace with this trend, we supply world-class products that leverage our know-how in areas such as manufacturing ultra-large materials, precision processing at the micron level, and providing advanced functionality and high-added value to suit different applications.

Global supply capabilities

The Toyo Tanso group employs a direct sales system in which our subsidiaries in North America, Europe, Asia, and around the world engage in processing and sales after directly gathering information on the needs of customers in local markets. We will continue to expand this network in the future so as to supply products to customers in various countries and regions around the world.

Global Supply Chain



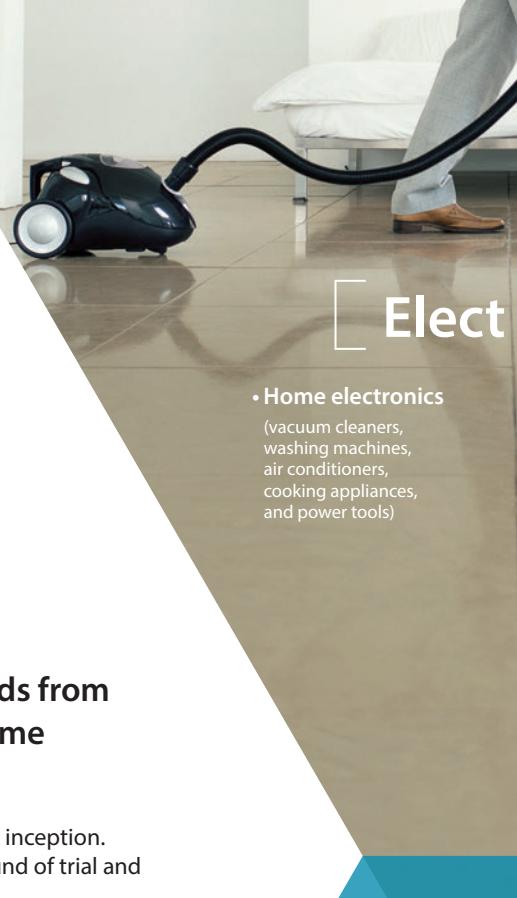
Business field

A wide variety of business fields supporting everything from domestic life to industry

Elect

• Home electronics

(vacuum cleaners, washing machines, air conditioners, cooking appliances, and power tools)



Toyo Tanso carbon products are hard at work in a range of fields from semiconductors, automobiles, and industrial machinery to home electronics, medical equipment, and aerospace...

The range of arenas in which our carbon products are active has expanded steadily since our inception. To realize the various needs of a wide array of industries, we have engaged in round after round of trial and error.

This hard work has borne fruit and we currently cover a wide range of fields extending from products and services for day-to-day life to those for industrial applications.

Industrial development and technological progress in fields such as next-generation semiconductors, automobiles, and information terminals is unrelenting, and have given birth to infinite opportunities for carbon applications.

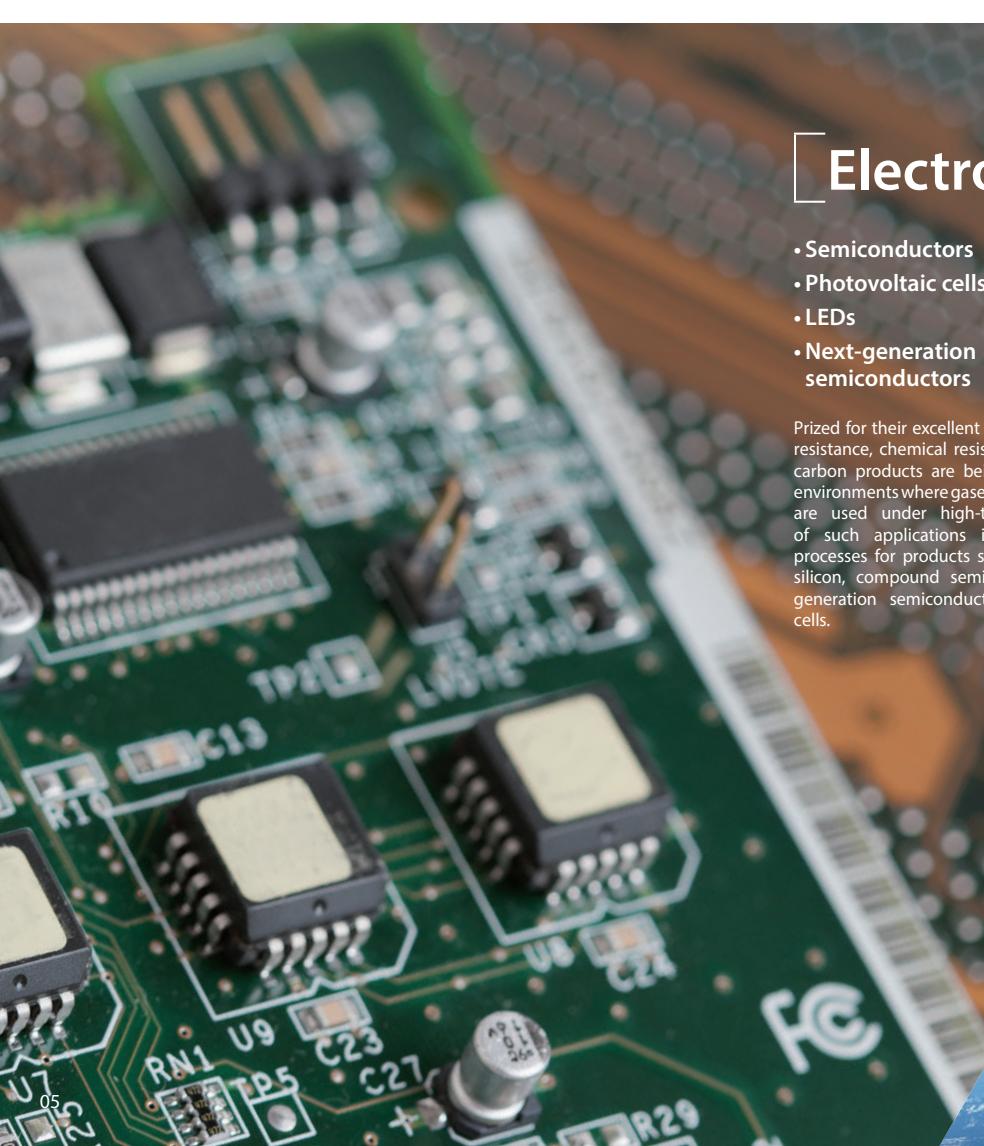
In search of new fields, Toyo Tanso will pursue new possibilities.

Busine

Electronics

- Semiconductors
- Photovoltaic cells
- LEDs
- Next-generation semiconductors
- Electronics equipment
- Communications equipment
- Optical fiber

Prized for their excellent properties such as heat resistance, chemical resistance, and high purity, carbon products are being employed in harsh environments where gases and chemical products are used under high-temperature. Examples of such applications include manufacturing processes for products such as monocrystalline silicon, compound semiconductors, and next-generation semiconductors, and photovoltaic cells.



Cuttin Indu

- Nuclear power
- Aerospace
- Medical care





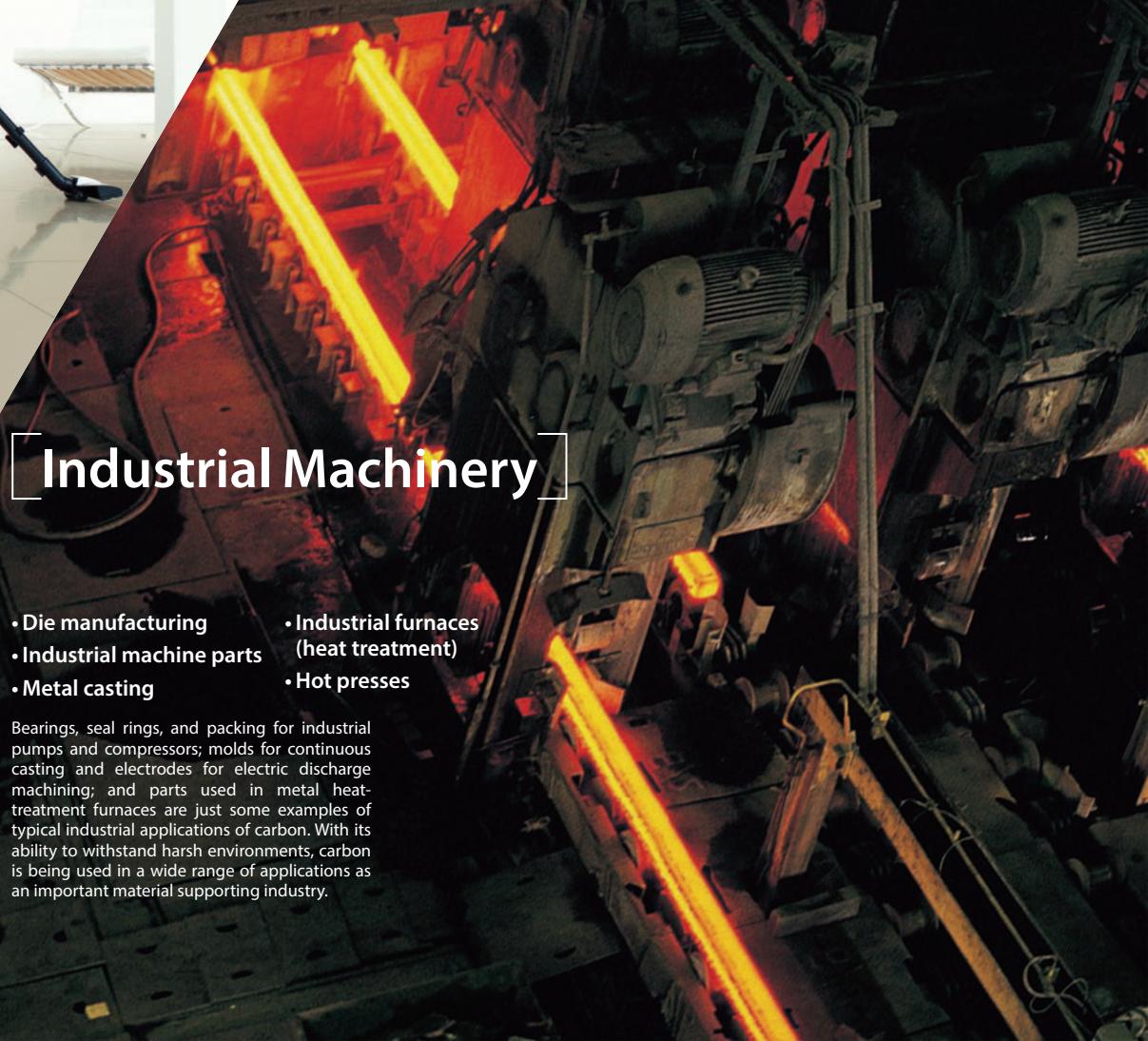
rical

Carbon has a range of desirable characteristics including excellent thermal and electrical conductivity and self-lubricating properties. It is being used as an important component that enables many functions in home electronics products, and supports domestic life.

ss field

g-edge stories

We have leveraged the knowledge and technical capabilities that we have accumulated over the years to cultivate reliability and high quality. These attributes have been recognized by cutting-edge industries, and the range of arenas in which our products are active is expanding to include nuclear power applications such as high temperature gas reactors or nuclear fusion reactors; aerospace applications such as rocket parts; and medical applications such as X-ray target materials for use in CT scanners.



Industrial Machinery

- Die manufacturing
- Industrial machine parts
- Metal casting
- Industrial furnaces (heat treatment)
- Hot presses

Bearings, seal rings, and packing for industrial pumps and compressors; molds for continuous casting and electrodes for electric discharge machining; and parts used in metal heat-treatment furnaces are just some examples of typical industrial applications of carbon. With its ability to withstand harsh environments, carbon is being used in a wide range of applications as an important material supporting industry.

Transportation

- Automobiles
- Rail
- Shipping

Large amounts of carbon are being used in parts and manufacturing process components for transportation equipment, in which consistent quality and reliability are essential.



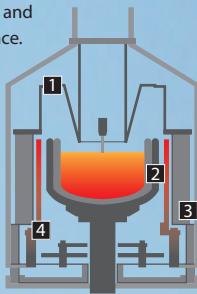
In industry, in life

Toyo Tanso product families play important roles in a range of different spheres

In industry

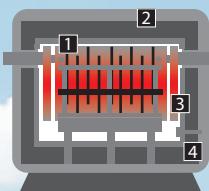
[Semiconductors]

Silicon wafers support the growth of the electronics industry. In the wafer fabrication process, during which products are exposed to ultra-high temperatures, large numbers of graphite components, such as heaters and crucibles, are being used for their high purity and excellent heat resistance.



[Industrial furnaces]

Heat treatment furnaces are used to optimize the functions of metal and ceramic components. Carbon products are being employed in trays, heaters, and other structures and parts used in the interiors of such furnaces thanks to their lightweight properties and excellent thermal and chemical resistance.



[Continuous Casting]

Graphite is being used for molds employed in facilities that continuously cast molten copper, aluminum, precious metals, and alloys into sheets, rods, and pipes.



Continuous Casting Dies

[Electric discharge machining]

Molds are essential for the mass production of parts. One method used to manufacture molds is known as electric discharge machining. Offering lightweight properties and excellent cutting performance, graphite electrodes enable fast processing and are being used in a wide range of processing applications from large items to small precision items.

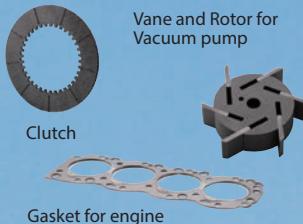


Electrodes for EDM

In life

[Automobiles]

A diverse range of carbon products are being used to provide different functions as components for equipment employed in automobile parts and their manufacturing processes.



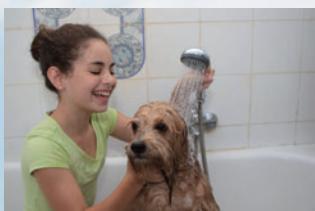
[Medical equipment]

High-purity graphite products are being incorporated as target materials in the X-ray tubes that play an important role in CT scanners.



[Energy-saving equipment]

Demand for energy-saving equipment is increasing. Carbon products, which have excellent self-lubricating properties, are being used in applications such as circulation pump parts for hot-water supply systems for which a high degree of safety is required.



[Space equipment]

C/C composites are being used in the grids of the ion engines that form the heart of the asteroid probe *Hayabusa* and its successor, *Hayabusa 2*.



Image: provided by JAXA. Illustrated by Akihiro Ikesita



[Trains]

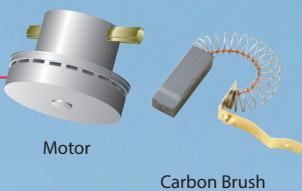
Our proprietary carbon strips for use in pantograph contacts are being employed in the field, in which they are helping to significantly reduce contact-wire wear.



Photograph: provided by East Japan Railway Company

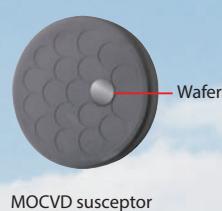
[Home electronics products]

Carbon brushes are being used in the motors of products such as vacuum cleaners, washing machines, and power tools. Possessing excellent electrical conductivity and wear resistance, they play the role of supplying electricity to the rotating element of the motor via sliding contact.



[LEDs]

Thanks to their high purity and excellent thermal stability and conductivity, SiC graphite coating products are being used as wafer pedestals in the film formation process for compound semiconductors, the light-emitting elements used in LEDs.



[Solar power generation]

Thanks to their excellent heat resistance and durability, graphite products are being employed in major components used in the manufacturing process and wafer film formation process of silicon, the mainstay material of solar cells.



Product Lineup

An extensive product lineup that responds to the needs of the market

Special Graphite

Isotropic Graphite

In addition to possessing graphite's excellent properties such as heat resistance, chemical resistance, and thermal conductivity, the nature of isotropic graphite's structure means it is not subject to directional constraints. Moreover, its fine particle structure provides high rigidity and ensures extremely little variation between materials. These properties are being used to advantage in a variety of industrial fields such as semiconductors, energy applications including solar and nuclear power generation, and metallurgical applications.

[For Semi-conductor/Solar Cell]

- 1 Heater
- 2 Crucible



[For Atomic Power]

- 3 Core component for High Temperature Gas-cooled Reactor

Photograph: provided by the Japan Atomic Energy Agency

[For Metallurgical]



Carbon products for general industries

Carbon Products for Mechanical applications

The self-lubricating properties and heat and chemical resistance of carbon materials are being used in many fields, in which typical metal sliding materials cannot be used due to their inability to cope well with high-temperature atmospheres, immersion in fluids, or exposure to lubricants.

- 1 Seal Ring
- 2 Bearing
- 3 Packing



[For Automobiles]

Rotor and Vane



[For Trains]

Slider for Pantograph

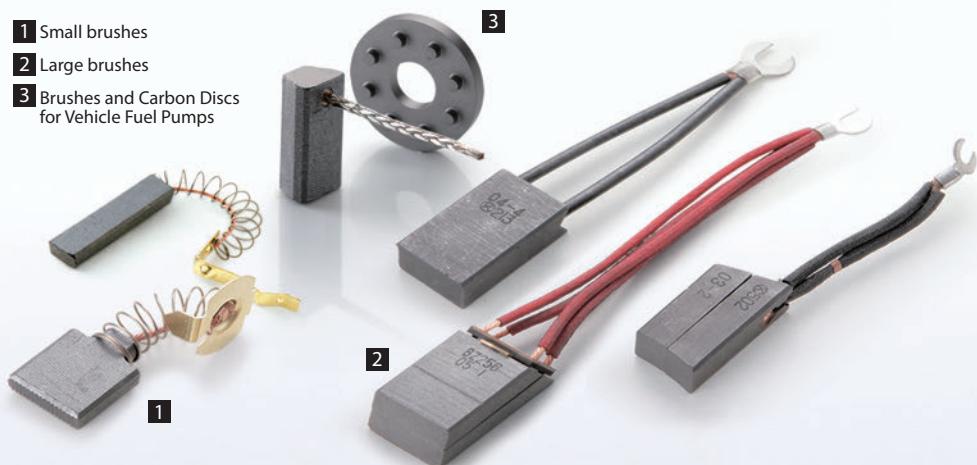


Carbon products for general industries

Carbon products for electrical applications (Carbon Brush)

Carbon brushes maintain a consistent and continuous supply of electricity as they slide against rotating elements. We supply models for use in small motors such as those used in vacuum cleaners and power tools, and models for use in large motors such as those used in collection systems for wind generators and other applications.

- 1 Small brushes
- 2 Large brushes
- 3 Brushes and Carbon Discs for Vehicle Fuel Pumps

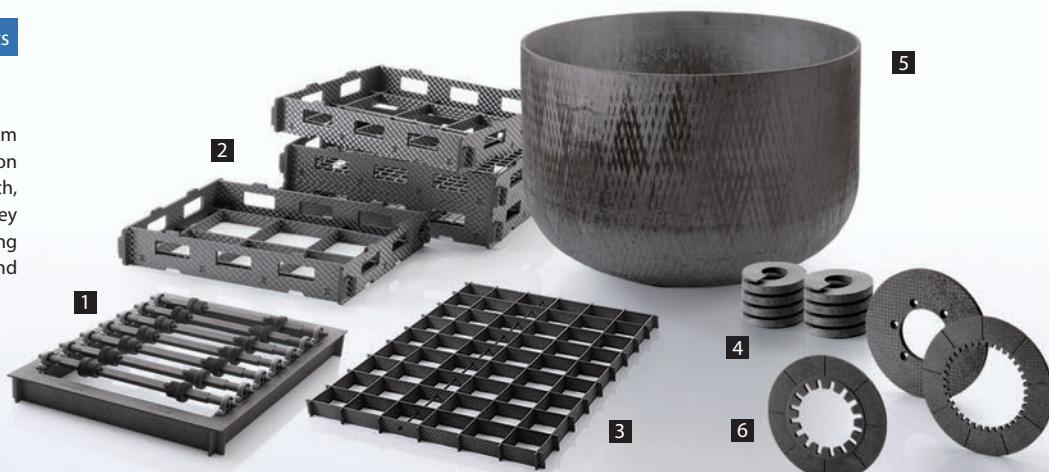


Compound materials and other products

C/C composite products

C/C composite materials are made from carbon reinforced with high-strength carbon fiber. Thanks to their improved strength, shock resistance, and other properties, they are being used in a variety of fields including high-tech industries such as aerospace and semiconductors.

- 1 Roller hearth
- 2 Basket
- 3 Base tray
- 4 Spring
- 5 Crucible
- 6 Clutch



Compound materials and other products

Graphite sheets PERMA-FOIL™

PERMA-FOIL™ products are lightweight graphite sheets that offer good flexibility and compression recovery properties. PERMA-FOIL™ adheres closely to opposing materials and has excellent thermal conductivity, making it suitable for use in sealing materials such as gaskets and packing, and in heat equalization materials.

- 1 Gasket
- 2 Roll products



Compound materials and other products

Surface Treatment

By conducting surface treatment or combining with different materials, we can add value to graphite substrates, for example, by increasing wear and corrosion resistance and imparting dust-preventive properties.

- 1 TaC-coated Graphite EVEREDKOTE™
- 2 SiC coated graphite PERMA KOTE™





Making the impossible come true and mastering the full potential of carbon to create new customer value

Creating excellence found nowhere else

Since our inception, our unrelenting commitment to the challenge of creating excellence found nowhere else has fostered our pioneer spirit and has helped us establish our position as a leader in the carbon industry.

Having inherited high standards of technology and an enterprising spirit, we are devoted to exploring the potential of carbon on a daily basis so as to create new value for our customers.

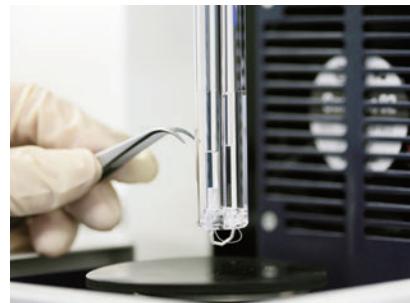
〔 Research and development system 〕

Considering customer value together to create new products

■ Delivering innovative products and proposals

At Toyo Tanso, our development management system is focused on the creation of innovative products and proposals. We undertake a wide range of work from basic and applied research to mass production development.

We also take on the challenge of new technological fields, and propose new value for our customers. Moreover, in order to enable us to respond comprehensively to international needs, we develop employees who are capable of working on the international stage by actively conducting exchanges between sales engineers from Japan and overseas.



Our state-of-the-art analysis equipment allows us to create innovative products and proposals

〔 Creating customer value 〕

Creating new products for the next generation

■ Anticipating future developments to create value

We hone our creative abilities so that we can turn our dreams into reality. Our efforts aimed at rapid value-creation ensure that these dreams are passed down to the next generation. Examples of such efforts include surface-treated materials and composite materials consisting of conventional isotropic graphite with added properties, and CNovel™, a porous carbon material that allows the creation of tailor-made products. Bringing our customers' dreams closer to reality, this revolutionary family of proprietary materials for next-generation industries has been made possible thanks to our technical capabilities and development management system.



〔 Customer value proposals 〕

Taking the initiative in the pursuit of customer value

■ Pursuing the potential of carbon

We utilize the high level of technical capabilities and extensive experience we have cultivated over the years to identify your hidden strengths. As professionals in the carbon industry, we leverage our state-of-the-art facilities to take on any research and development challenge. Our mission is to provide our customers with solutions that exceed their expectations.



Our engineers draw on state-of-the-art analysis technologies and their extensive experience to provide solutions that exceed expectations

[Overseas Network]



Europe

TOYO TANSO EUROPE S.p.A. (Italy)

TOYO TANSO FRANCE S.A. (France)

GTD GRAPHIT TECHNOLOGIE GmbH (Germany)

SWEDEN / SOUTH AFRICA

Asia

SHANGHAI TOYO TANSO CO., LTD. (China)

SHANGHAI TOYO TANSO INDUSTRIAL CO., LTD. (China)

TOYO TANSO (ZHEJIANG) CO., LTD. (China)

SHANGHAI YONGXIN TOYO TANSO CO., LTD. (China)

TOYO TANSO TAIWAN CO., LTD. (Taiwan)

TOYO TANSO KOREA CO., LTD. (Korea)

TOYO TANSO (THAILAND) CO., LTD. (Thailand)

TOYO TANSO SINGAPORE PTE. LTD. (Singapore)

PT. TOYO TANSO INDONESIA (Indonesia)

INDIA / MALAYSIA /
AUSTRALIA / INDONESIA

An unrelenting commitment to the challenges of the ever-expanding global market

While our material production bases are concentrated in Japan, the Toyo Tanso group has established subsidiaries in countries and regions in North America, Europe, and elsewhere in Asia that carry out machining, added-value treatments, and sales.

This globe-spanning, direct-sales-oriented network allows us to accurately apprehend the latest needs of customers in every country and region, ensuring that we are able to respond promptly and adequately, and supply high-quality products.

Japan

TOYO TANSO CO., LTD.
TOTANKAKO CO., LTD.
OHWADA CARBON INDUSTRIAL CO., LTD.



Americas

TOYO TANSO USA, INC. (America)
TOYO TANSO MEXICO S.A. de C.V. (Mexico)

USA / BRAZIL / ARGENTINA



Borderless information sharing

All of the information we have accumulated through our involvement with users across a wide range of industrial fields around the world is used as feedback to create better products in the future. At Toyo Tanso we share the latest information on market- and user-related trends and other topics by encouraging close communication between managers and engineers from around the world.

Globally connected organization and employee development

Our international subsidiaries are organized by region and applications/products, and their leaders have the authority and responsibility to carry out work from strategic planning to execution. We also focus on developing sales engineers and machinists across the group through initiatives such as sending engineers to overseas subsidiaries and providing training for local staff.



Outstanding technologies allow us to provide a stable supply of high-quality products

Continually evolving production technologies and quality assurance systems

With the advancement of technology in the market, the needs of our customers are becoming more and more diverse.

To meet these ever-evolving needs, we have accumulated superior manufacturing facilities and technologies to establish a system that allows us to rapidly improve and supplement various factors in the production process.

Under our strict quality control system, we are constantly striving to supply our customers with the highest quality.

Manufacturing capabilities that respond to your needs

State-of-the-art manufacturing facilities capable of responding to global needs

■ One of the largest isotropic graphite manufacturing lines in the world

Every Toyo Tanso factory has gathered superior facilities and technologies, and has established its own unique production line.

Our flagship manufacturing facility, the Takuma Division, started operation in 1985. It responds to global needs through one of the largest isotropic graphite production lines in the world.



Takuma Division (site area of approximately 185,000 m²)

■ Integrated manufacturing process from material production to processing

The production of isotropic graphite requires sophisticated know-how at every stage in the production process from raw materials and isostatic pressing to baking and graphitizing. To achieve this, we combine the experience we have acquired over our long history with automated, state-of-the-art facilities.



One of the largest material manufacturing facilities in the world

Diverse range of processing technologies

Advanced machining technologies including microfabrication, sophisticated purification processes, and composite production

■ From machining of ultra-large items to microfabrication

Our position as a materials manufacturer that is well-acquainted with the characteristics of carbon allows us to perform a wide range of machining work. We can handle everything from ultra-large items and precision work requiring micro-level precision to complex shapes that are difficult to process. We employ machining technologies that incorporate state-of-the-art facilities and

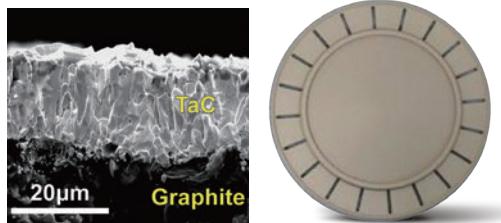


techniques used by expert workers to respond to a wide range of market needs.

Extensive range of facilities and technical capabilities

■ Added value treatment technologies that increase the potential of carbon

Products that have stricter requirements for corrosion and oxidation resistance can be covered with materials such as TaC (tantalum carbide), SiC (silicon carbide), pyrolytic carbon, or glassy carbon. By thus adding value to graphite, we are expanding the range of carbon applications.



Example of TaC (tantalum carbide) coating graphite and cross-section photo

Reliable quality control system

A comprehensive quality control system for every process

■ Comprehensive quality control in all processes

At our 24-hour, state-of-the-art factories with reduced personnel numbers, we use systematized centralized management and conduct strict quality inspections for each individual process in the manufacturing process. Machining processes employ a comprehensive quality control system featuring built-in quality and state-of-the-art inspection facilities to ensure that products can meet our customers' stringent specification requirements.



24-hour centralized control system

■ Total management system supporting high quality

We have established a strict quality management system based on ISO 9001, and enforce built-in quality and conduct continuous improvement activities to increase customer satisfaction. To generate higher quality products and services, we pay careful attention to the safety of employees on the production worksite and to global-level environmental regulations regarding chemical substances used in products.



Inspection using 3D measurement machine

Corporate Social Responsibility Initiatives

Our corporate philosophy of contributing to the world by pursuing the possibilities inherent in carbon embodies the objective of corporate social responsibility (CSR) itself, namely, contributing to sustainable development.

Based on our corporate philosophy, all employees including senior management vow to make ongoing contributions to sustainable development by maintaining healthy relationships with all our stakeholders and working on environmental and social issues.

■ Corporate governance

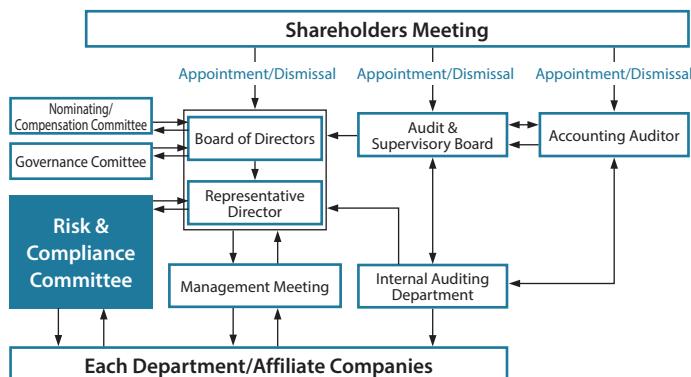
Under our corporate philosophy of contributing to the world by pursuing the possibilities inherent in carbon, to develop perpetually as a global corporate group, we have built a firm internal control system and also promote healthy corporate activities that prioritize compliance.

All Toyo Tanso employees are provided with a copy of our behavioral standards, which indicate action guidelines, and our compliance guidebook, which explains laws and regulations

that must be observed. In addition to carrying out educational activities to encourage awareness, we have rolled out this policy at our affiliates in Japan and overseas with the aim of ensuring a unified awareness across the entire group.

We have also established a risk and compliance committee, and are working to solve various issues through interdepartmental coordination.

[Corporate Governance Structure]



■ Employment and workplace environment

In addition to striving to create workplace environments that provide job satisfaction, we aim to ensure that every employee can enjoy well-being in mind and body.

To respect basic human rights and guarantee fair and equitable employment free from discrimination, in addition to providing company regulations, we support all employees through a comprehensive system that includes a dedicated help desk. We have also thoroughly implemented occupational safety and health measures and taken steps to prevent industrial

accidents through the establishment of an advisory committee. In 2010, we formed a dedicated department to promote work-life balance, and are also focused on ensuring that our workplaces provide job satisfaction and are easy to work at, for example, by holding annual factory tours for families of employees and obtaining the Next-generation Certification Mark (also known as the "Kurumin Mark").



"Kurumin Mark"

* "Kurumin Mark" is a certification of Japanese Ministry of Health, Labour and Welfare, for companies which provide support to families raising children.



Quality and product safety



Fair operating practices



Environment



Community

■ Quality and product safety

Based on the ISO 9001 standard, which all our Japanese production bases have acquired, we are striving to improve quality and are engaged in continuous improvement activities every step of the way from design and development to production, sales, and service. For these activities, we have adopted a theme of prioritizing the improvement of customer satisfaction to ensure that we are able to manufacture completely unique products and deliver the highest standards of quality.

■ Control system about product liability

We establish control regulations about product liability, and not only work for the prevention of an accident caused by defects in products at each step such as product planning, designing, manufacturing, sales, but construct proper response system in case of an accident.

■ Fair operating practices

With the aim of maintaining international peace and safety, and from the perspective of encouraging the nonproliferation of weapons of mass destruction and the like and preventing the excessive stockpiling of regular weapons, our basic policy is to not illegally export or supply goods and technologies restricted by the Foreign Exchange and Foreign Trade Control Act and other export-related laws in violation of

such laws. We have also established security trade control rules in order to ensure appropriate security trade control. We will conduct thorough education and training and other measures to ensure that all Toyo Tanso employees are familiar with the intent of these rules and put them into action. In addition to such measures, we also invest in efforts aimed at ensuring fair transactions.

■ Environment

We conduct corporate activities that contribute to environmental protection with the aim of ensuring coexistence and harmony between humankind, carbon, and nature. Carbon products contribute to the prevention of global warming and environmental preservation through factors such as clean energy, energy efficiency, and recycling. We focus on the environment and energy fields, in which our products and technologies play active roles. Moreover, we have made efforts not only on waste reduction and strict management of environmental pollutants based on various laws and regulations, but also on making energy use more efficient and labor saving in manufacturing processes, etc. As a result, in December 2016, we obtained certification of the international standard "ISO 14001:2015" of the management system, and we will continue to proactively engage in environmental conservation activities.

■ Management of environmentally harmful substances

With the market demanding adequate responses to global regulations on specified chemical substances, we gather and organize up-to-date information on related laws and regulations under the leadership of our environmental management department. Moreover, in addition to implementing adequate responses in relevant products, we aim to minimize the risk on human health and the environment through the sound management and appropriate communication of information regarding the chemical substances included in our products.

■ Community participation and development

Community contributions

In Kagawa Prefecture, which is home to four of Toyo Tanso factories including affiliated company, we are proactively involved in efforts to encourage regional development and coexistence with the community, including:

- Fighting fires and participating in relief efforts in the event of a natural disaster through involvement with local fire brigades.
- Participating in community clean up activities.
- Sponsoring and proactively participating in festivals, community events, and sporting events to support regional development activities.

Employee development and academic promotion

Toyo Tanso supports the operation of the Kondo Memorial Foundation, a public interest foundation that is currently primarily funded by Toyo Tanso stock. Established at the behest of our founder, the late Teruhisa Kondo, the foundation contributes to social development through its scholarship program and to academic research through its research grant program.

[Business location]

Japan

In Japan, our materials manufacturing and processing sites are located mainly in Kagawa Prefecture, and we offer product sales from sales offices situated around the country.



1 TOYO TANSO CO., LTD.

Head office / Kondo Teruhisa Memorial Advanced Carbon Technology Center

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Tel. 81-6-6472-5811 Fax. 81-6-6472-6007

Osaka sales office

Tel. 81-6-6472-5849 Fax. 81-6-6472-6011

International Sales Support Dept.

Tel. 81-6-6472-5856 Fax. 81-6-6472-6012

www.toyotanso.co.jp (Japanese)

www.toyotanso.com (English)



2 Toyo Tanso Technology Center

2181-2 Nakahime, Ohnohara-cho, Kanonji, Kagawa 769-1612

Tel. 81-875-54-2626 Fax. 81-875-54-4761



3 Takuma Division

2791 Matsusaki, Takuma-cho, Mitoyo, Kagawa 769-1102

Tel. 81-875-83-6171 Fax. 81-875-83-7775



4 Hagiwara plant

850 Hagiwara, Ohnohara-cho, Kanonji, Kagawa 769-1614

Tel. 81-875-54-2535 Fax. 81-875-54-4762



5 Iwaki plant

1-31 Yoshima-kogyodanchi, Iwaki, Fukushima 970-1144

Tel. 81-246-36-8805 Fax. 81-246-36-8806



6 TOTANKAKO CO., LTD.

1335-22 Saitakami, Saita-cho, Mitoyo, Kagawa 769-0401

Tel. 81-875-67-2655 Fax. 81-875-67-3044

<http://www.totankako.com/>



7 OHWADA CARBON INDUSTRIAL CO., LTD.

2-1-16 Hinode-cho, Toyonaka, Osaka 561-0821

Tel. 81-6-6333-2301 Fax. 81-6-6333-8430

<http://www.ohwada-c.jp/>

8 Tohoku sales office

Izumi Excel Bldg., 5th Fl. 1-3-14 Izumichuo, Izumi-ku, Sendai, Miyagi 981-3133

Tel. 81-22-371-1831 Fax. 81-22-371-1832

9 Tokyo sales office

Yaezu First Financial Bldg., 14th Fl. 1-3-7 Yaezu, Chuo-ku, Tokyo 103-0028

Tel. 81-3-3273-0721 Fax. 81-3-3273-0722

10 Hokuriku sales office

Meiji Yasuda Seimei Toyama Bldg., 7th Fl. 1-3-10 Takaramachi, Toyama, Toyama 930-0007

Tel. 81-76-439-8022 Fax. 81-76-439-8023

11 Nagoya sales office

SK Nagoya Bldg., 2nd Fl. 1-3-7 Nishiki, Naka-ku, Nagoya, Aichi 460-0003

Tel. 81-52-232-5701 Fax. 81-52-232-5703

12 Osaka sales office

5-7-12 Takeshima, Nishiyodogawa-ku, Osaka 555-0011, Japan

Tel. 81-6-6472-5842 Fax. 81-6-6472-6011

13 Hiroshima sales office

Hiroshima Inarimachi Daiichi Seimei Bldg., 8th FL

2-16 Inari-machi, Minami-ku, Hiroshima, Hiroshima 732-0827

Tel. 81-82-261-3761 Fax. 81-82-262-7633

14 Shikoku sales office

2181-2 Nakahime, Ohnohara-cho, Kanonji, Kagawa 769-1612

Tel. 81-875-54-2992 Fax. 81-875-54-4442

15 Kyushu sales office

Kyu-kan Chikushidori Bldg., 9th Fl. 2-6-1 Hakataekihigashi, Hakata-ku, Fukuoka, Fukuoka 812-0013

Tel. 81-92-481-0731 Fax. 81-92-481-0733

Asia

Our five Chinese subsidiaries machine, manufacture, and sell products, and together with Toyo Tanso sites in various countries and regions around the Asia, cover the entire Asian region.



1 SHANGHAI TOYO TANSO CO., LTD. (China)

上海東洋炭素有限公司

2 SHANGHAI TOYO TANSO INDUSTRIAL CO., LTD. (China)

上海東洋炭素工業有限公司

No.486 Xinfel Road, Songjiang, Shanghai, CHINA

① Tel. 86-21-3774-2888 Fax. 86-21-5774-1762

② Tel. 86-21-5773-6628 Fax. 86-21-5773-6550

<http://www.sttanso.com/>



3 TOYO TANSO (ZHEJIANG) CO., LTD. (China)

東洋炭素(浙江)有限公司

No. 88, Pu Xian Road, Pinghu Economic-Technological Development Zone, Zhejiang Province, CHINA.

Tel. 86-573-8529-9866 Fax. 86-573-8528-5680



4 SHANGHAI YONGXIN TOYO TANSO CO., LTD. (China)

上海永信東洋炭素有限公司

Xianghua Town, Chongming County, Shanghai, CHINA

Tel. 86-21-5944-1531 Fax. 86-21-5944-1518

<http://www.yongxin-toyo.com/>



5 TOYO TANSO TAIWAN CO., LTD. (Taiwan)

精工碳素股份有限公司

No.1-50, Lunping, Guanyin Dist., Taoyuan City 328, Taiwan

Tel. 886-3-498-5577 Fax. 886-3-498-5588

<http://www.toytanso.com.tw/>



6 TOYO TANSO KOREA CO., LTD. (Korea)

(Yeoksam-dong) #711 Hanshin Intervalley24 (East Tower), 322, Teheran-ro, Gangnam-gu, Seoul, 135-918, KOREA

Tel. 82-2-2183-1660 Fax. 82-2-2183-1665

<http://www.toyotanso-korea.co.kr/>

7 TOYO TANSO (THAILAND) CO., LTD. (Thailand)

333/5 Moo 9, Bangpla, Bangplee, Samutprakarn 10540

Thailand

Tel. 66-2-136-6240 Fax. 66-2-136-6241

8 TOYO TANSO SINGAPORE PTE. LTD. (Singapore)

20 Cross Street, #02-07/08, China Square Central, Singapore 048422

Tel. 65-6718-6520 Fax. 65-6718-6529

<http://www.toyotanso.com.sg/>

9 PT. TOYO TANSO INDONESIA (Indonesia)

BM RENTAL FACTORY Unit B2, Kav.L9 JL.Madura I Kawasan Industri MM2100, Cikodokan Cikarang Barat, Kabupaten Bekasi Jawa,barat 17845, West Java, Indonesia

Tel. 62-21-2808-0180 Fax. 62-21-2808-0181

Process of graphite and carbon

Manufacture of carbon brushes

Sales offices

Manufacture of Brush holders

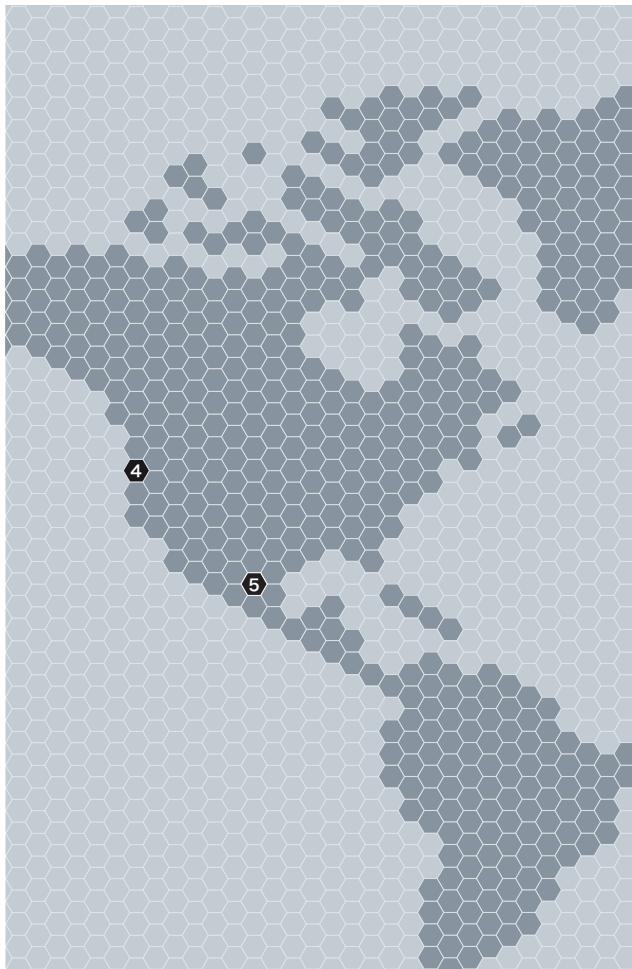
[Business location]

Europe & Americas

In addition to product sales, our North American and European subsidiaries carry out processes such as the treatment of high-purity graphite products and SiC coating.



Europe



Americas

1 TOYO TANSO EUROPE S.p.A. (Italy)



20877 Roncello (MB) Via Leonardo Da Vinci,
5 ITALY
Tel. 39-039-627841 Fax. 39-039-695202
<http://www.toyotanso-europe.com/>



2 TOYO TANSO FRANCE S.A. (France)



Z. A. du Buisson de la Coudre 9-10, rue Eugène
Hénaff 78190. TRAPPES, FRANCE
Tel. 33-1-30-66-35-35 Fax. 33-1-30-66-31-69
<http://www.toyotansofrance.com/>

3 GTD GRAPHIT

TECHNOLOGIE GmbH (Germany)
Raiffeisenstr.1, 35428 Langgöns, GERMANY
Tel. 49-6403-9514-0 Fax. 49-6403-9514-25
<http://www.gtd-graphit.de/>



4 TOYO TANSO USA, INC. (America)



2575 N.W. Graham Circle Troutdale, OR 97060,
USA
Tel. 1-503-661-7700 Fax. 1-503-669-9107
<http://www.ttu.com/>



5 TOYO TANSO MEXICO S.A. DE C.V. (Mexico)



Mina de Guadalupe 950-H, Parque Industrial
Santa Fe IV, Silao, Guanajuato, Mexico CP 36275
Tel. 52-472-748-9382/9376

- Process of graphite and carbon
- Manufacture of carbon brushes
- ◆ Sales offices
- Manufacture of Brush holders

[Corporate Profile]

Name	TOYO TANSO CO., LTD.
Foundation	February 11, 1941
Incorporation	July 31, 1947
Capital	7.8 billion Yen (as of December 31, 2017)
Representative	Naotaka Kondo Representative Director Chairman & President (CEO)
Accounting date	December 31
Business outline	1. Production, sale and related processing of isotropic graphite, other specialized carbon products and carbon products for general industries. 2. Production, sale and related processing of composite materials made from carbon and ceramic, metal or organic materials. 3. Production and sale of carbon electrode for fluorine electrolysis and business of surface treatment on various materials with fluorine gas.
Annual sales	Consolidated : 35.2 billion Yen (year ending December 2017) Non-consolidated : 24.3 billion Yen (year ending December 2017)
Employees	Consolidated : 1,710 (as of December 2017) Non-consolidated : 847 (as of December 2017)
Banks	Mizuho Bank, Hyakujushi Bank, Bank of Tokyo-Mitsubishi UFJ
Domestic offices	Tohoku sales office, Tokyo sales office, Hokuriku sales office, Nagoya sales office, Osaka sales office, Hiroshima sales office, Shikoku sales office, Kyushu sales office, Kondo Teruhisa Memorial Advanced Carbon Technology Center, Toyo Tanso Technology Center, Takuma Division, Hagiwara plant, Iwaki plant
Domestic affiliates	TOTANKAKO CO., LTD., OHWADA CARBON INDUSTRIAL CO., LTD.
Overseas offices	America, Italy, France, Germany, China, Taiwan, Korea, Thailand, Singapore, Mexico, Indonesia

Please check our web site for more company details.



[Corporate History]

1941	Feb.:	Founded Kondo Carbon Kogyosho. Started manufacture of carbon brushes
1947	Jul.:	Incorporated as Kondo Carbon Manufacturing Co., Ltd.
1949	Nov.:	Renamed to TOYO TANSO CO., LTD.
1957	Oct.:	Opened Osaka sales office
1960	Oct.:	Opened Tokyo sales office
1961	Feb.:	Built Shikoku plant
1974	Mar.:	Built Ohnohara plant Succeeded in mass production for large-size isotropic graphite.
1980	May:	Spun off Shikoku plant as TOTANKAKO CO., LTD.
1981	Aug.:	Built Hagiwara plant
1985	Dec.:	Built Takuma plant
1987	Apr.:	Founded T.T.AMERICA INC. in the US
1988	Aug.:	Founded GRAPHITES TECHNOLOGIE et INDUSTRIE S.A. (current name, TOYO TANSO FRANCE S.A) in France
1989	Nov.:	Completion of Head office building in Osaka, located in Nishiyodogawa-ku, Osaka.
1991	Apr.:	Founded GRAPHITE TECHNOLOGY APPLICATIONS S.R.L. in Italy May: Founded GTD GRAPHITE TECHNOLOGIE GmbH in Germany
	Nov.:	Founded Toyo Tanso Taiwan Co., Ltd in the Taiwan by acquisition of stock. Founded TOYO TANSO USA, INC. in the US
1994	Mar.:	Reorganized Ohnohara plant as Ohnohara Engineering & Development Center Aug.: Founded SHANGHAI TOYO TANSO CO., LTD.
1995	Feb.:	Reorganized Takuma plant into Takuma Division
1996	Jan.:	Takuma Division acquired ISO-9002:1994 (SGS)
1997	Jan.:	Founded TOYO TANSO EUROPE S.p.A. in Italy by acquisition of whole stock.
1999	Apr.:	Built Iwaki plant Sep.: Founded OHWADA CARBON INDUSTRIAL CO., LTD. by acquisition of whole stock.
2000	Apr.:	Founded SHANGHAI YONGXIN TOYO TANSO CO., LTD. in China
2001	Apr.:	Establish of 2nd factory at Takuma plant.
2003	Sep.:	Founded SHANGHAI TOYO TANSO INDUSTRIAL CO., LTD. in China Oct.: Takuma Division, Ohnohara Engineering & Development Center, and Iwaki Plant acquired ISO-9001:2000 (SGS)
2004	May:	Hagiwara Plant acquired ISO-9001:2000 (SGS)
2005	Apr.:	Founded JIAXIANG TOYO TANSO CO., LTD. in China
2006	Mar.:	Listed on the first section of the Tokyo Stock Exchange Sep.: Founded TOYO TANSO KOREA CO., LTD. in Korea
2007	Dec.:	Relocation of head office building to Osaka Kita-ku Establish of Kondo Teruhisa Memorial Advanced Carbon Technology Center at abolished head office building Renamed Ohnohara Engineering Development Center to Toyo Tanso Technology Center
2008	Mar.:	Founded TOYO TANSO (THAILAND) CO., LTD. in Thailand
2010	Feb.:	Establish of 3rd factory at Takuma plant. Aug.: Founded TOYO TANSO SINGAPORE PTE. LTD. in Singapore
2011	Mar.:	Founded TOYO TANSO INDIA PRIVATE LIMITED in India
2013	Apr.:	Founded TOYO TANSO GRAFIT VE KARBON URUNLERİ SAN. VETIC. A.S. (TOYO TANSO GRAPHITE AND CARBON PRODUCTS INDUSTRY AND COMMERCIAL A.S) in Turkey
	Nov.:	Relocation of head office to Takeshima, Nishiyodogawa-ku, Osaka
2014	Sep.:	Founded TOYO TANSO (ZHEJIANG) CO., LTD. in China
2015	May:	Founded PT. TOYO TANSO INDONESIA in Indonesia
	Dec.:	Founded TOYO TANSO MEXICO S.A. DE C.V. in Mexico



Toyo Tanso Co., Ltd.

www.toytanso.com



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