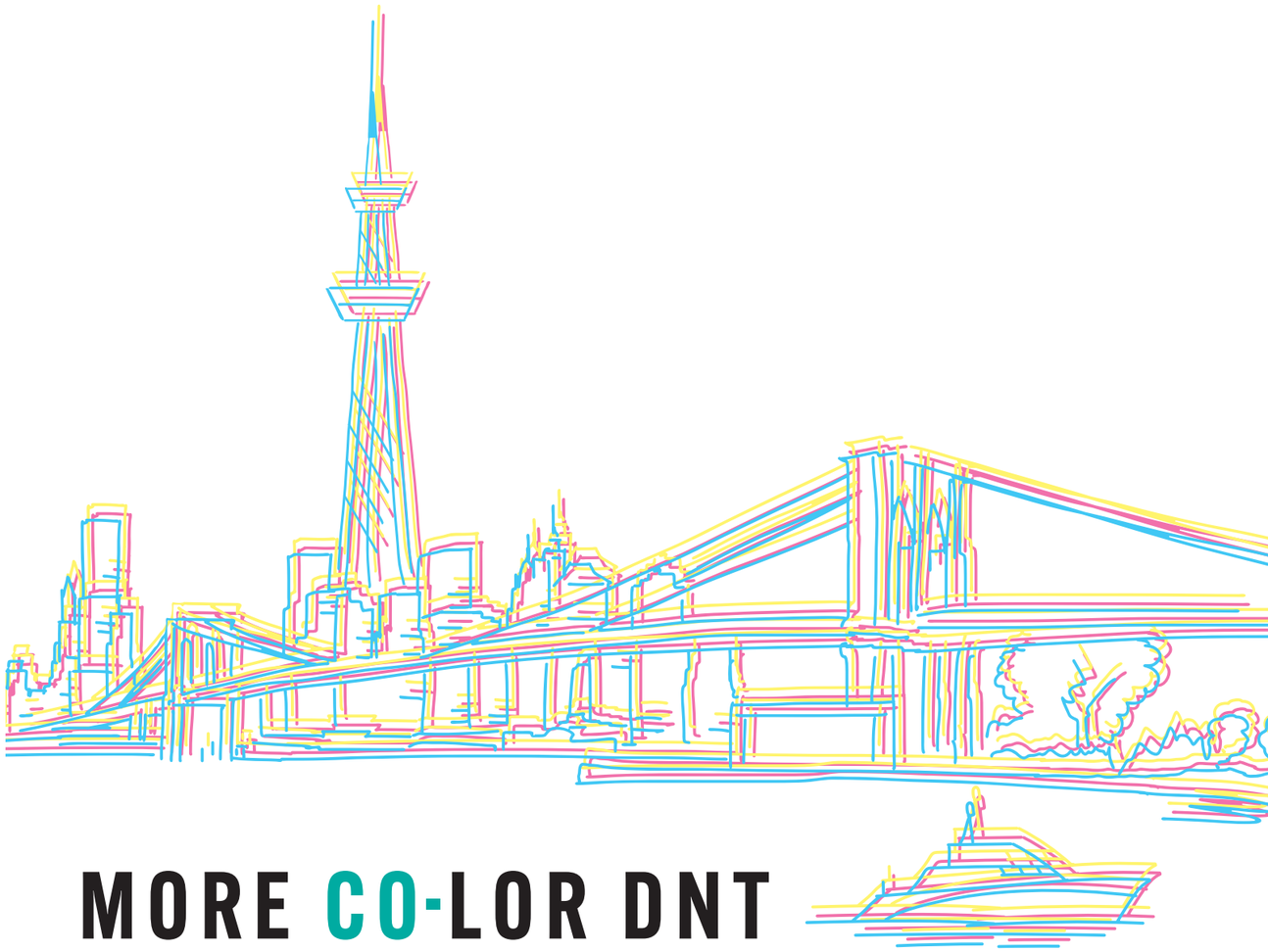
DNT
DAI NIPPON TORYO



MORE CO-LOR DNT

Dai Nippon Toryo Co., Ltd. Company Profile

C-8047.23.3①(DP)

The power of color to society.

For the future.

MORE CO-LOR DNT

DNT's commitment to technologies that will color the future.

From economic growth based on scrap-and-build to a sustainable society utilizing stock. In an age that calls for a shift in approaches to urban development, we aim to use our proprietary technologies to enhance the value of structures, buildings, and other social stock.

High-performance coatings not only provide outstanding durability and weatherability, but also contribute to reducing life cycle costs with excellent energy-saving effects and ease of maintenance. We support the creation of an affluent society that fosters creativity by enhancing the design of all manner of things through the development of sophisticated paints and coating systems that can express beautiful and inspiring designs to people. We are also dedicated to the development of diagnostic reagents based on paint dispersion technology and other research to realize a prosperous society and affluent lives for all.

Structures that will continue to protect cities for decades to come. Buildings that are comfortable for people and the environment. Industrial products that combine durability and creativity. DNT's mission is to continue to propose ideal products and services required around the world through its coating technologies, to color the future better, and to take on challenges in uncharted territories.

Corporate Philosophy

Dai Nippon Toryo Co., Ltd. (DNT) aims to be a company that protects the global environment and resources while also widely contributing to society's prosperity and affluent life through the creation of new values.

Future possibilities from coatings.

Special surface preparation technology

Atmospheric isolation technology

Weak solvent-based coatings

Peeling control technology

High solid coatings

Low VOC technology

Water-based coatings

Thermal barrier/insulation technology

Powder coatings

Low-odor technology

Inkjet coatings

Light-reflecting technology

Illumination and fluorescence technology

Method for manufacturing reactive lead powder

SUBOID lead suboxide powder anticorrosive coating

Coatings that further extend the service life of large structures

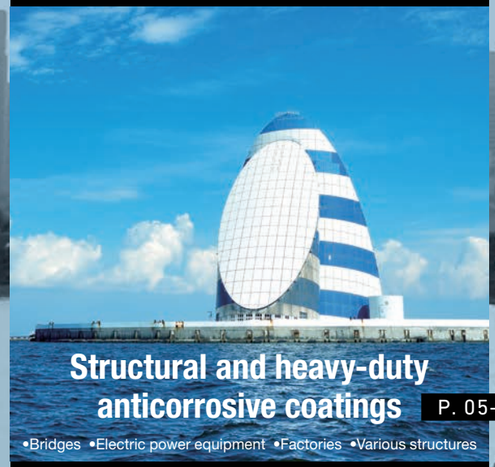
Coatings with the added perspective of human comfort

Functional coatings for vehicles, manufacturing machinery, and other applications that support our daily lives

DNT started out with the development of SUBOID, a revolutionary anticorrosive coating that greatly extended the period of protection provided by coatings.

In 1927, Makoto Negishi (later the second president of DNT) invented SUBOID, an anticorrosion coating that outperformed the most advanced paints made in Europe and the United States at the time. Boasting a level of quality so high that it was patented in eight countries around the world, DNT has since rewritten many common practices in the coatings industry as a manufacturer of heavy-duty anticorrosion coatings. In particular, DNT boasts the top share in the industry for anticorrosion coatings for structures. Today, our coatings continue to protect bridges, steel towers, and various other landmarks.
In recent years, we have established our own research centers: the Protective Coatings Technology Center and the Coating Technology Center, through which we are actively pursuing the development of the most advanced coatings.
We will continue to refine our technologies to create coatings that will remain in demand over the next generation.

DNT's main business fields



Structural and heavy-duty anticorrosive coatings P. 05-06

•Bridges •Electric power equipment •Factories •Various structures

Coatings for buildings P. 07-08

•Large-scale commercial facilities •Train stations
•Housing •Apartments

Industrial coatings P. 09-10

•Automobiles •Trains •Manufacturing machinery
•Industrial products

Tokyo Gate Bridge

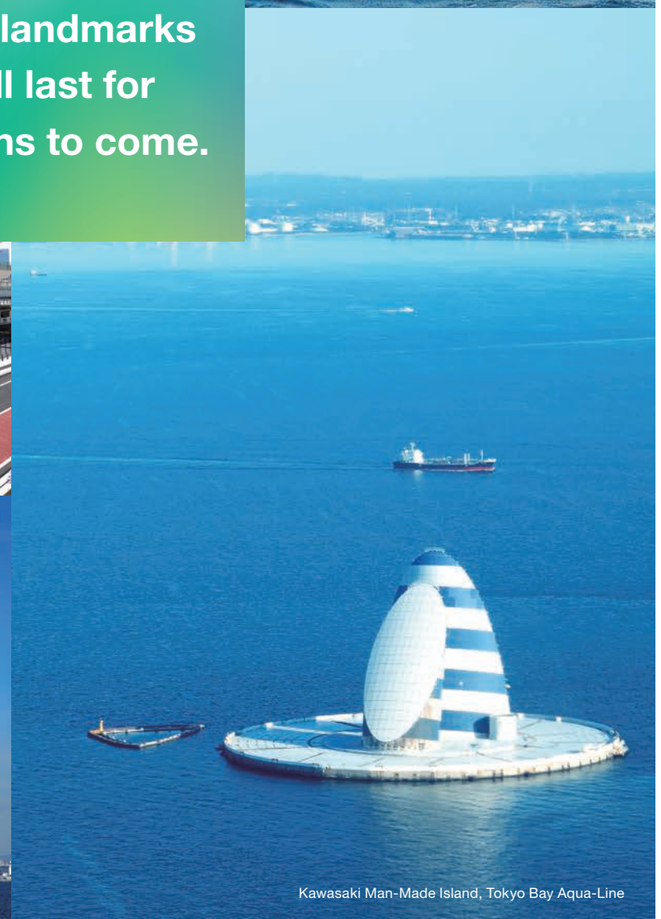
Structural and heavy-duty anticorrosive coatings

Helping create beautiful landmarks that will last for generations to come.

Takanawa Gateway Station

Courtesy of Honshu-Shikoku Bridge Expressway Company Limited

Akashi Kaikyo Bridge



Kawasaki Man-Made Island, Tokyo Bay Aqua-Line

Environmentally friendly and environmentally competitive. New protective coating technologies for structures that support our daily lives.

01 Superior weatherability even with reduced processes. Extending the service life of large structures far beyond expected timespans.

V-FLON HB

This is a heavy-duty anticorrosive coating for steel structures, mainly bridges and plant facilities, providing a thick film of 55 µm per treatment, and realizing super weatherability for several decades with a single application. It boasts an extremely high level of eco-friendliness, with VOC emissions reduced by up to 31% compared to conventional systems, thanks to its process-saving coating system. Moreover, it can be used on various structures and with a variety of coatings due to its wide range of primer suitability.

©TOKYO SKYTREE

Used to coat TOKYO SKYTREE® in its entirety

02 Thoroughly shields structures in salt-affected areas, such as coastal regions, from salt, oxygen, and moisture.

Taiender System

This system not only blocks the penetration of corrosive substances within the coating film, but also inhibits the diffusion of corrosive substances that have penetrated into the structure and renders them harmless. It is an anti-salt damage coating that can be applied not only to steel but to all nonferrous metals, including galvanized steel, in a wide range of environments from -5°C to 40°C. Since it does not fall under the Ordinance on Prevention of Hazards Due to Specified Chemical Substances, it can be expected to improve the efficiency of painting work and reduce health risks.

Used at Tonbetsu Fishing Port (Hokkaido)

03 Protects structures by coating the surface preparation. Dust-free and friendly to workers and the surrounding environment.

SABI SHUT

By simply applying this product after cleaning and surface preparation work, it is possible to form a substrate that is equivalent or superior to a conventional type 2 surface preparation, which is friendly to people and the environment. Compared to conventional physical surface preparation, a cost reduction of approximately 52% can be expected (DNT's estimate). The system has been used in more than 1,000 cases, mainly in areas where physical surface preparation is difficult, such as bolted joints, and in locations with environmental restrictions, including around chemical plants and hospitals.

Selected for the 2015 MLIT recommended technologies

The power of color to society. For the future.

MORE CO-LOR DNT

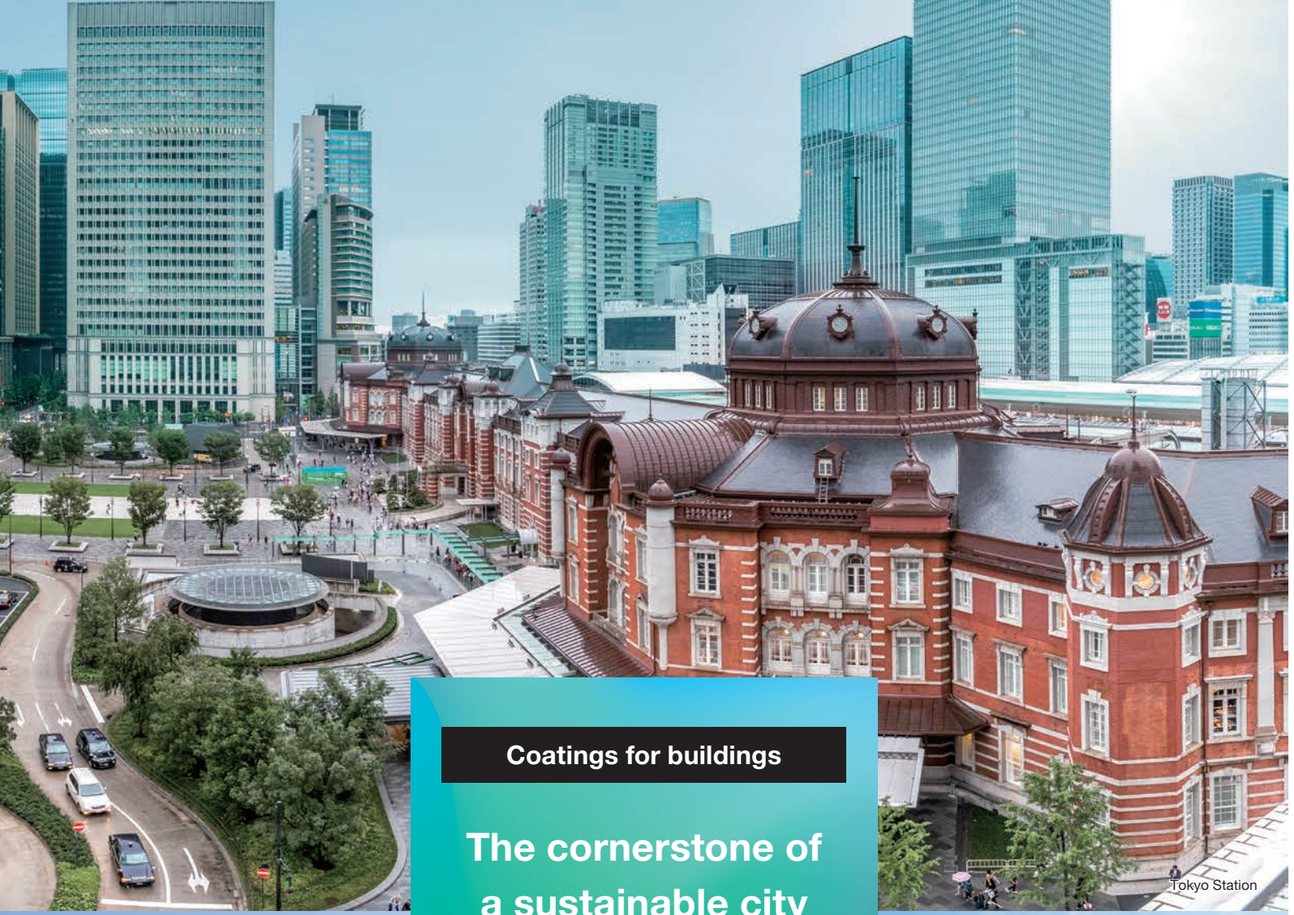
"Just paste and repair," the next-generation, process-saving anticorrosive sheet method.

METAMORU SHEET #1

This heavy-duty anticorrosive sheet contains zinc powder in the adhesive layer, which contributes to long-term durability. By simply removing rust from corroded steel and affixing the sheet, a top coat can be applied over the sheet. Since it is a factory-formed product, quality is consistent and no film thickness measurement is required. It supports labor- and process-saving at construction sites.

Simply remove the rust, apply the sheet, and paint the top coat.

Easy installation and long-term durability can be expected.


Tokyo Station

Coatings for buildings

The cornerstone of a sustainable city where people and nature coexist in harmony.


©SS Inc.

Giboshi of Nippon Budokan


Kyocera Dome Osaka

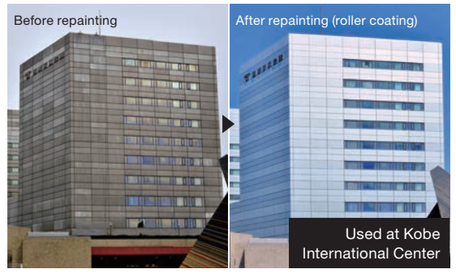

Toranomon Hills Business Tower

Long life and beauty that contribute to environmental preservation in buildings where people get together and mingle.

01 Can be used on a wide range of substrates. High-brightness metallic that can be applied on-site.

V-FLON #200 SMILE RB Metallic System

This is a coating system for the exterior wall materials of mid- to high-rise buildings constructed with the curtain wall method. Metallic designs, which until now have been limited to spray painting in the factory, can now be repainted on-site using brushes and rollers. This weak-solvent type product is both environmentally friendly and easy to work with. It can be applied to a wide range of substrates, including aluminum alloys, concrete, PC plates, and iron and steel hardware.



Used at Kobe International Center

02 Water-based coating for indoor/outdoor use to prevent sebum softening, providing effective protection against peeling of the coating film caused by sebum penetration.

Aquamarine Tackless Rin

This coating is effective in preventing staining and peeling of the coating film due to sebum softening. Our proprietary resin forms a stronger coating film than general emulsion paints, preventing penetration of sebum, which can cause peeling of the coating film. Because of its ultra-low odor,* easy workability, water resistance, and weatherability, it can be used not only indoors but also in the open corridors of condominiums and other settings.

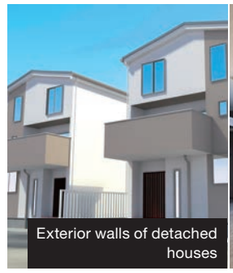
*Reduces odors by up to one-third compared to general water-based coatings (with gloss) (based on DNT's in-house tests)

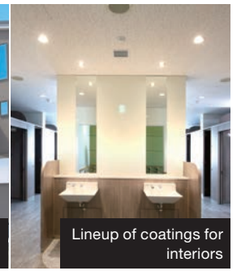
Received the Japan Society of Colour Material Technology Award

03 High durability, design, and functionality to protect and beautify precious homes.

Coatings for Housing Exterior Building Materials

Through outdoor exposure tests and various property tests, we have achieved weatherability and durability suited to the Japanese climate and environment. We also offer a lineup of functional coatings that are superior in design using ink-jet coating technology (see page 10), as well as in terms of protection and aesthetics, such as stain and mold resistance. We are particularly proud of our high market share for ceramic exterior and roofing materials.


Exterior walls of detached houses


Lineup of coatings for interiors

The power of color to society.
For the future.

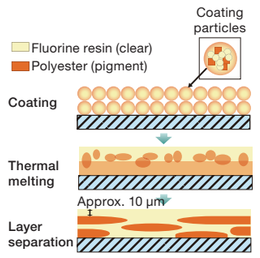
MORE CO-LOR DNT

Powder coating that combines weatherability, adhesion, and workability in a single coat.

Fluorine resin powder coating　Two-layer separation type

Powder Flon SELA/ Powder Flon SELA Bonding Metallic

With one coat, a fluorine resin layer with excellent weatherability and a polyester mixed-layer coating film with excellent workability and adhesiveness are formed. It is the latest coating for exterior building materials, offering high weatherability, adhesiveness, and workability while maintaining the characteristics of powder coatings, such as the ability to reduce VOCs and other environmental burdens.



Mechanism of two-layer separation


Used at Yokohama City Hall

Seibu Railway's limited express train Laview

Industrial coatings

Color technology that stimulates creativity.

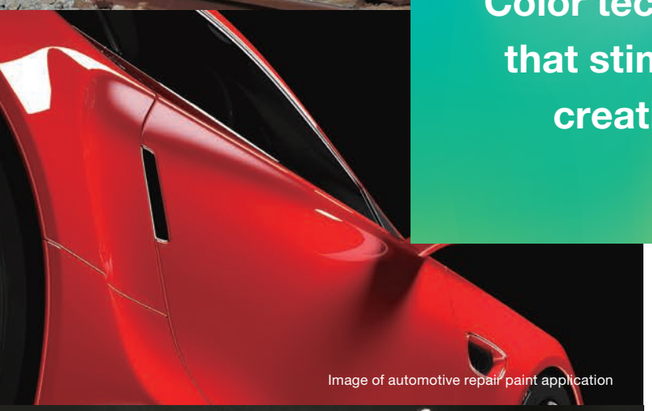


Image of automotive repair paint application

Tiger thermos bottle

Forklift truck

Durability to withstand wind, rain and dust, and freedom of color make for a unique design.

01 High brightness similar to a plating finish is expressed on a wide range of substrates and shapes.

SUPER BRIGHT No. 2000

Our proprietary coating formulation adjusts the orientation of vapor-deposited aluminum pigments, which are thin and have very small particles, to a uniform orientation. Light is reflected directly, resulting in a fine finish with little graininess and expressing a high-luminance metallic tone, making it a low-cost alternative to plating. It can be applied to a wide range of substrates and shapes, including automotive interior and exterior parts, weak electrical products, and plastic products.

Used to coat Seibu Railway's limited express train Laview in its entirety

02 In addition to having a deep, glossy color, this product also dries quickly and makes for a more pleasant work environment.

Auto V-TOP MONARCH Excellent

An environmentally friendly coating that does not contain lead, chromium, or other hazardous substances. Compared to conventional products, it is less prone to metallic irregularities and has good thinner dilution. It has a heavy fleshy texture, and offers easy color reflection and gloss. It can be used for a wide range of applications, including automotive repairs, large vehicles, industrial machinery, and general-purpose painting.

Painting booth for automotive repair coatings (Komaki Office)

03 We develop coatings for industrial products to meet specific customer needs, such as improved functionality and environmental friendliness.

Coatings for Metal Baking

We have a wide range of solvent-based, water-based, and powder coatings for ferrous and nonferrous metals, which can be used in various fields, such as metal building materials for high-rise buildings, steel furniture, automotive parts, heavy and weak electric appliances, and machine tools. We also develop custom-made products to meet the needs of customers, contributing to the improvement of the environmental performance of their work sites, especially in terms of enhanced durability and process-saving.

Used for Inaba Corporation's FORTA

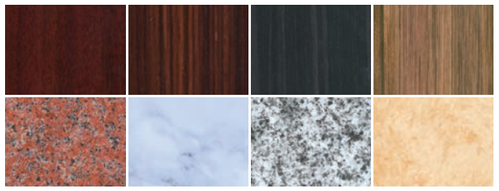
The power of color to society.
For the future.

MORE CO-LOR DNT

Adds greater designability to the painting process by combining functionality and aesthetics.

DNT Digital Coating System

Formation of an inkjet decorative layer that provides more precise design while maintaining functionality for products such as interior panels and exterior building materials, for which functionality has been emphasized in the past. This technology is the result of applying our expertise as the only paint manufacturer in Japan that handles both coatings and inks.



Utilizing our expertise in polymer synthesis for the development of advanced technologies in a variety of fields.

In the more than 90 years since our founding, we have consistently developed coatings that meet the needs of the times and our customers. In recent years, we have been particularly active in applying our technology to the medical field, an area that is attracting much attention, and to the social issue of aging infrastructure.
We continue to conduct research and development in the hope of expanding the possibilities of coatings and contributing to society.

DATA Various functions of functional nano-coatings

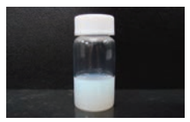
Antistatic function

- Applications:
  Various optical films
  Antistatic materials

Indium tin oxide (ITO) dispersion

Refractive index adjustment function

- Applications:
  Anti-reflective films
  Index matching
  Various optical lenses



Zirconium oxide dispersion

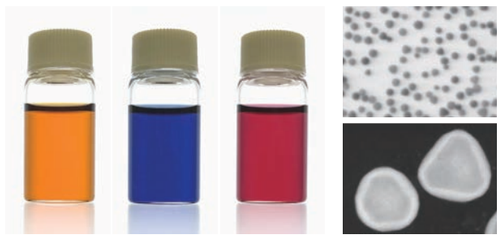
Light absorption function

- Applications:
  Diagnostics (e.g., immunochromatography applications)
  Wavelength absorbing materials
  Reflecting materials
  Sensing materials

Gold nanoplate dispersion

Applying coating dispersion technology to the field of biosensing.

With the recent development of nanoparticle control technology, the optical properties of anisotropic noble metal nanoparticles are attracting attention for their application in the field of biosensing. We have been conducting research in this field for more than 20 years centered on coating dispersion technology. By applying special surface treatment to nanoparticles, we have succeeded in achieving functionalization of this technology, which is indispensable for diagnostic applications. Currently, this technology is being applied to immunochromatography test kits that can simultaneously detect multiple viral antigens and immunochromatography for extracellular vesicle research. We will work to make further contributions to technological evolution in the field of medical research.



Highly resistant silver nanoplate dispersion

Focusing on the development of coatings that can maintain a strong infrastructure without placing a burden on the environment.

As Japan's infrastructure continues to deteriorate and maintenance, including inspection and repair, becomes a major social issue, we have demonstrated our strength in the field of heavy-duty anticorrosion, especially for large structures. We have developed a number of environmentally friendly coatings, such as those with ultra-weatherability to save resources and processes, and those with low VOCs to reduce air pollution and the impact on health and the environment. In addition to extending the service life of infrastructure, we continue to conduct research and develop technologies that are friendly to workers and the surrounding environment.

Typical examples of development fields for environmentally friendly products

- Reduction of air pollution
- Reduction of impacts on health and the environment
- Resource saving
- Energy saving and process saving
- Prevention of soil and marine pollution
- Renewable energy, lightweight materials, etc.

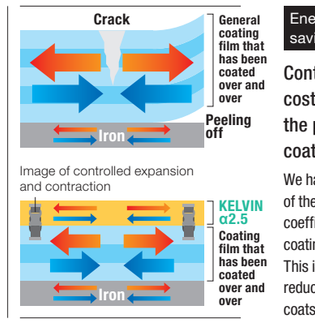


Image of controlled expansion and contraction

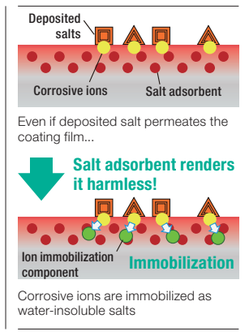
KELVIN α2.5
Received the Japan Society of Colour Material Technology Award in FY2019

Energy saving and process saving

Contributes to life cycle cost reduction by reducing the process of removing old coating film.

We have reduced the risk of peeling of the old coating film by making the coefficient of linear expansion of the coating film close to that of steel. This is a revolutionary coating that reduces the risk of peeling the more coats are applied.

The arrows in the figure indicate the magnitude of expansion and contraction



Even if deposited salt permeates the coating film...

Corrosive ions are immobilized as water-insoluble salts

Saltless Clear
Test result: Chlorine removal rate 82.3% (reference value)

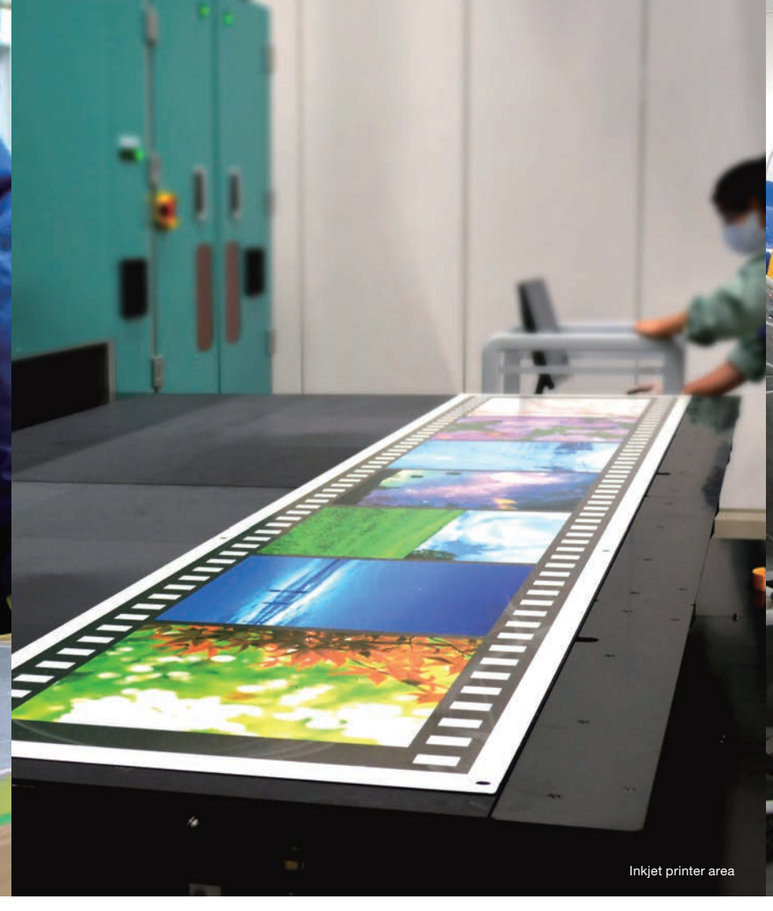
Resource saving

Longer service life of structures by controlling deposited salt and cleaning.

This coating has high water repellency and offers excellent control of deposited salt and washability. It is particularly effective on marine and coastal structures where salt damage is significant.

Expanding the possibilities of functional coatings and creating new standards.

In 2020, we opened two facilities that serve as flagship centers for research on coatings. These facilities have a wide range of specialized equipment to further promote the development of coatings with unprecedented value, including large materials, environmental testing laboratories, and various coating machines. This will ultimately lead to proposals that support innovation among our customers.



Inkjet printer area

Liquid robot coating area

Protective Coatings Technology Center

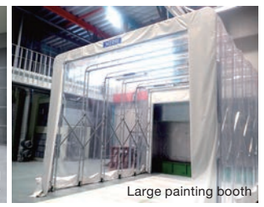
First in Japan Nasu Office

Utilizing a wide variety of experimental and environmental simulation facilities to explore and create the most advanced protective coating technologies.

This is the first R&D facility for protective coating technologies in Japan. The facility is mainly used to verify the workability and finished appearance of room-temperature drying (curing) coatings, including coatings for large structures such as bridges, plant facilities, and stadiums, as well as coatings for buildings such as detached houses, condominiums, and office buildings. We will develop economical coatings and construction methods to reduce the life cycle costs of social and private infrastructures by verifying the workability and various properties of coatings using large-scale mock-up materials in a variety of environments similar to those of actual construction sites, while freely controlling temperature and humidity. The facility also promotes joint research and development with customers, proposes new technologies, and disseminates and shares a variety of information to pass on protective coating technologies to the future.

Accelerated rust-prevention test laboratory

Large-scale environmental test laboratory



Large painting booth

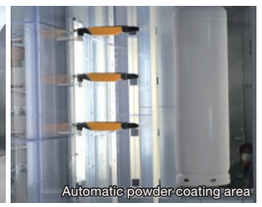
Coating Technology Center

Komaki Office

Research and development center for next-generation coatings for EV exteriors, infrastructure equipment, and other new materials.

This facility provides individual solutions for coating systems targeting the industrial field. We reproduce the coating process that takes place on the production lines of our client companies in our booths at the center, and examine the coating conditions, methods, and finished appearance under a variety of conditions. For example, we select the optimum coating gun for the shape of the workpiece to be coated, and verify the texture and feel of inkjet prints, such as grained and hairline patterns. This enables more reliable and speedy line verification, which in turn helps to shorten lead time and generate ideas for new products. In addition to environmentally friendly paints including water-based paints and powder coatings, we can also perform composite coating that combines a wide variety of paints, such as in-mold coating, which allows molding and coating of base materials in the same mold. Therefore, this facility is capable of contributing to the enhancement of the product development capabilities of the entire coating industry through joint product development with customers, coating demonstrations, and technical and design presentations.

Drying furnace



Automatic powder coating area

In-mold coating area

Color Designs

Color schemes that harmonize with unique and original designs. Proposing optimal color designs from an infinite number of possibilities.

We propose color designs for buildings and structures that take into consideration the landscape and color development for product design, making full use of the various colors and textures available through our coatings. Through high-quality design and color proposals, we help to create added value and a comfortable environment.

Adding unique and original colors, patterns, and textures. Color development to enhance aesthetic features essential for product design.

Through color development, we propose color tones, patterns, and textures for industrial products using a combination of paints and coating systems. We suggest a wide variety of designs by combining various coatings, such as adding a unique texture or luxurious feel to the coating film, or expressing three-dimensional effects and gradations with inkjet coating systems.

Coated color plate domes

Considering the optimal color scheme from a multifaceted viewpoint of buildings and structures, aiming for both harmony and creativity in our color designs.

Buildings, bridges, and other architectural structures exist in relation to various elements, such as their function, purpose, and environment, and thus require careful color selection for painting. We take into account the landscape planning of each region and conduct color planning that makes the most of the structural beauty of each structure.

Simulation of bridge colors

Quality Control and Production Systems

Ensuring the stable supply of high-quality coatings through both system development and efforts to enhance quality.

In order to deliver the various products developed and produced by DNT in a reliable and prompt manner, we update our quality control and production systems on a daily basis. We are committed to fulfilling our responsibilities as a coating manufacturer by responding to the demands and trust of our customers.

Establishing a quality control system that meets the social responsibilities of a coatings manufacturer by setting higher quality and inspection standards.

We use our own standardized production processes and procedures to ensure stable production at the quality level specified for each product. We have a thorough quality control system in place, with inspectors who have acquired the knowledge and skills necessary to conduct inspections. Furthermore, we are taking steps to strengthen our quality control system by introducing a system that records and accumulates information and results of product inspections.

Continuous cycle of production system improvements to ensure prompt and stable delivery of the requested coatings as and when they are required.

We have a production system in place to ensure that we can supply paint products to our customers on the required delivery date. Our production department is divided into small groups to carry out improvement activities according to each theme. Progress is monitored every month, and the entire production department holds a semiannual improvement presentation session to constantly work on enhancing productivity and quality.

Head Office / Osaka Office

Dai Nippon Toryo Co., Ltd. Information correct as of April 1, 2023

Head office	SR Bldg. Nagahori (general reception on 8th floor) 1-18-11 Minamisemba, Chuo-ku, Osaka 542-0081, Japan
Established	July 25, 1929
Capital	8,827 million yen
Stock listing	Tokyo Stock Exchange, Prime Market
Representative	Takayuki Sato, President
Main business	Manufacturing and sales of coatings and jet inks Sales of different kinds of coating equipment and devices, coating works, etc.

More information on DNT's history ▶

Group Companies in Japan

Coating manufacturing and color mixing

A diverse lineup of environmentally friendly water-based paints and powder coatings, including those for heavy-duty anticorrosion applications

- Nitto Chemical Co., Ltd.
- Chiba Kako Co., Ltd.
- Nitto Sanwa Toryo Co., Ltd.
- Japan Powder Coatings Manufacturing Co., Ltd.
- Okayama Kako Co., Ltd.
- DNT Service Co., Ltd.

Coating sales

Providing not only product proposals, but also support for the maintenance and preservation of coated structures

- Dai Nippon Toryo Hokkaido Co., Ltd.
- Sunday Paint Co., Ltd.
- DNT Sanyo Chemical Co., Ltd.
- Ube Toryo. Co., Ltd.

Lighting

From proposal to installation, responsible for all aspects of lighting design inside and outside large facilities, such as commercial facilities and residences

- DN Lighting Co., Ltd.
- Akita DN Lighting Co., Ltd.

Fluorescent color material

Provision of fluorescent and reflective paints for outdoor products and facilities

- Sinloihi Co., Ltd.

Logistics

Proper storage and prompt delivery of hazardous and non-hazardous materials, mainly coatings

- Nitto Service Co., Ltd.

Engineering

Anticorrosion work, reinforcement, and maintenance of infrastructure, high-rise buildings, and other large structures

- Nitto Engineering Co., Ltd.

Group company locations and contact information ▶

DNT's Network

Information correct as of April 1, 2023

We boast an extensive global network. Through close cooperation, we have built a system that enables us to provide cutting-edge technology and knowledge to our customers as quickly as possible.

Domestic Network

Offices and Headquarters

Head Office / Osaka Office
Nasu Office
Komaki Office
Tokyo Sales Headquarters

Factory

Nasu Factory
Komaki Factory

East Japan Sales Dept.

Sapporo Sales Office
Sendai Sales Office
Kitakanto Sales Office
Tokyo Sales Office
Niigata Sales Office
Chiba Sales Office
Kanagawa Sales Office
Shizuoka Sales Office

West Japan Sales Dept.

Nagoya Sales Office
Toyama Sales Office
Osaka Sales Office
Keiji Sales Office
Himeji Branch Office
Okayama Sales Office
Hiroshima Sales Office
Takamatsu Sales Office
Fukuoka Sales Office
Nagasaki Sales Office

Office locations and contact information ▶

Overseas Network

Asia

[Thailand] Thai DNT Paint Mfg. Co., Ltd. Affiliated company
[Singapore] DNT Singapore Pte., Ltd. Affiliated company
[Malaysia] DNT Paint (Malaysia) Sdn. Bhd. Affiliated company
[Malaysia] PPG Coatings (Malaysia) Sdn. Bhd. Licensing partner
[Indonesia] PT. DNT INDONESIA Affiliated company
[Indonesia] P.T.Tunggal Djaja Indah Licensing partner
[China] DNT (Zhejiang) Co., Ltd. Affiliated company
[Taiwan] Taiyang Paints Corp. Licensing partner
[India] Maharani Innovative Paints Pvt. Ltd. Licensing partner

Europe, U.S.A. and Others

[Mexico] DAI NIPPON TORYO MEXICANA, S.A.de C.V. Affiliated company
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