

Environmental Report 2020



Table of Contents

Message from the President P.1

Company Profile P.2

Basic Environmental Policy P.3

Environmental Objectives/Achievements P.4

Initiatives to reduce the environmental burden and performance P.5-P.8

Initiatives related to global warming/saving energy

Initiatives related to saving resources/reducing waste

- Efficient use of water resources
- Initiatives to reduce waste matter

Initiatives to reduce the release of chemical substances

Material flow P.9

Environment-Related Products P.10

FY2019 Environmental Activities P.11-P.16

Aiming to reduce the environmental burden

Working together with the local community

Message from the President

Dynic Corporation promotes corporate activities covering the stages from development through to disposal of products, considering the environmental preservation at all times.

The corporate objective of Dynic is to color our day-to-day life *abundant* and *comfortable*.

All employees of Dynic always take care to follow the Environmental Basic Policy, which was established for the purpose of directing us to a habitable earth, and are working hard every day on environmentally-friendly corporate activities in consideration of harmony between technology and the environment.

Our energy-conservation activities at Dynic include updating the chillers and transformers used to produce equipment coolant water, switching to LED lighting, and preventing temperature increases in plant buildings by painting their roofs with heat-reflecting paint. As activities to put resources to effective use, we also are advancing efforts such as use of Internet of things (IoT) technology in industrial-water receiving equipment and switching to overhead fire-hydrant piping.

In addition to these activities at the production stage, we also are carrying out activities to raise environmental awareness through an astronomic observation club and a newly introduced planetarium at the Dynic Astro Park Observatory at the Shiga Plant, through means including opening the observatory up for local residents to observe nature through the stars in cooperation with the town of Taga.

To ensure that we continue to be a trusted company in the future, all our employees will work together as one to strengthen our efforts regarding environmental measures and undertake the development of environment-related products that take into consideration the global environment and living environments, promoting business activities that contribute to the realization of global environment preservation with our eyes towards the next generation.



A handwritten signature in black ink, which appears to read "Yoshio Oishi". The signature is fluid and cursive, written over a white background.

Yoshio Oishi
President
Dynic Corporation

August 2020

Company Profile

Corporate Name	Dynic Corporation
Establishment	August 18, 1919
Capital	5,795,650,000 yen
Stock Listing	Listed on the first section of the Tokyo Stock Exchange
Amount of Sales	28.3billion yen (40.8 billion yen including the Group companies) (As of June 26, 2020)
Employees	608(1,386 including the Group companies) (As of June 26, 2020)
Head Office	Kyoto Head Office: 26 Daimon-cho, Nishikyogoku, Ukyo-ku, Kyoto 615-0812 Tel: +81-75-313-2111(main) Fax: +81-75-313-2116 Tokyo Head Office: Shin Onarimon Bldg., 6-17-19, Shimbashi, Minato-ku, Tokyo 105-0004 Tel: +81-3-5402-1811(main) Fax: +81-3-5402-3146
Branch	Sapporo, Tokyo, Nagoya, Osaka, Fukuoka, Hong Kong, Singapore, U.S.A., Thailand, England, China, Indonesia, Czech (including the Group companies)
Factory	Shiga, Saitama, Oji, Fuji, Moka, Singapore, U.S.A., Thailand, England, China, Indonesia, Czech (including the Group companies)
Affiliated Company	Seven companies in Japan; eleven companies in other countries
Business Line	Book-binding cloth, cloth for printing/business purposes, decorative cloth for packages, cloth for magnetic passbooks, film-coated products, material for display labels, composite film, printer ribbon, business card printers, stationary paper goods, magnet-related products, moisture getter for organic EL, carpet, wallpapers, ceiling material, blinds, non-woven cloth/carpets for automotive interiors, filters, industrial tarpaulins, canvases, rainwear, industrial non-woven cloth, aluminum foil/lid material for container sealing, paper core/paper packaging, film processing for cataplasm, freshness-keeping agents for food, adhesive interlining, fancy products, transportation/storage of products, etc. (including



Basic Environmental Policy

[Basic Environmental Policy of Dynic]

Dynic Corporation is aware the efforts toward environmental preservation are an important business challenge and believes it is the responsibility of the manufacturer to observe domestic and overseas laws and regulations related to the environment and provide products with less environmental burden to the markets. To implement the concept in a specific manner, we will thoroughly promote the following items in each of the stages, including development, material procurement, manufacturing, sales, distribution, and disposal.

- (1) We will reduce the environmental burden in all stages of our business activities throughout the life cycle of the products;
- (2) We will proactively make efforts to save energy and reduce waste, thereby preventing environmental contamination;
- (3) We will prevent risk caused by harmful chemical substances that damage the environment;
- (4) We will disclose information regarding our business activities related to the environment and proactively promote environment preservation activities, while acting in concert with local communities; and
- (5) We will implement education related to environmental preservation, thereby improving awareness of the environment.

Yoshio Oishi, President
Dynic Corporation

■ Efforts for Reducing Environmental Burden

We are introducing the manufacturing method that features less of an energy burden and implementing product design where resource saving and longer service life are taken into consideration; in addition, we consider materials that feature less of an environmental burden and materials that are easy to recycle from the design phase of the product. In the manufacturing phase, we make efforts to save energy and reduce waste in the manufacturing scene every day, thereby contributing to the reduction in the environmental burden. In the marketing phase, we propose environmentally friendly products that reduce the environmental burden at the customer by using the products, thereby making efforts to contribute to the environmental preservation of the earth.

■ Efforts for Countermeasures against Global Warming and Biodiversity Conservation

We are promoting countermeasures against global warming through our efforts for energy-saving activities throughout Dynic, thereby reducing emissions of carbon dioxide. In addition, regarding the biodiversity conservation, we are making efforts toward coexistence with the global environment through our activities toward risks, including countermeasures against global warming.



● Environmental Objectives/Achievements ●

We set the midterm objectives for environmental performance (FY2018 to 2020) and are committed to them.

The results of our efforts in FY2019 against this target are as follows.

● FY2019 Environmental Objectives/Achievements List

Areas	Control parameter	FY2019				Final objectives of FY2020	
		Objective	Achievement	Self-evaluation	Related page		
Global warming mitigation Energy saving	CO2 emissions reduction	t-CO2	Versus FY2013 6% reduction	-16.9%	◎	P5	Versus FY2013 7% reduction
	Reduction in specific energy consumption	L/km of oil equivalent	Versus FY2017 2% improvement	-3.7%	○	P5	Versus FY2017 3% improvement
Resource saving	Reduction in water consumption	1000 tons	Versus FY2017 2% reduction	+1.7%	×	P6	Versus FY2017 3% reduction
Reducing, reusing, and recycling of waste	Waste volume reduction	t	Versus FY2017 2% reduction	-2.1%	○	P7	Versus FY2017 3% reduction
	Volume reduction of industrial wastes subject to final disposal	t	Versus FY2017 2% reduction	+73%	×	P7	Versus FY2017 3% reduction
Prevention of environmental pollution	Reduction in emissions of PRTR substances	t	Versus FY2016 15% reduction	-15.2%	○	P8	Versus FY2016 20% reduction
Environment-related products	Increase in % sales	%	Versus FY2017 1% improvement	+2.7%	◎	P10	Versus FY2017 1.5% improvement

<Self-evaluation legend>

- ◎ More than twice the objective
- Achieved the objective
- △ The objective was narrowly not achieved
- × Improvement toward the objective was not made.

Initiatives related to global warming/saving energy

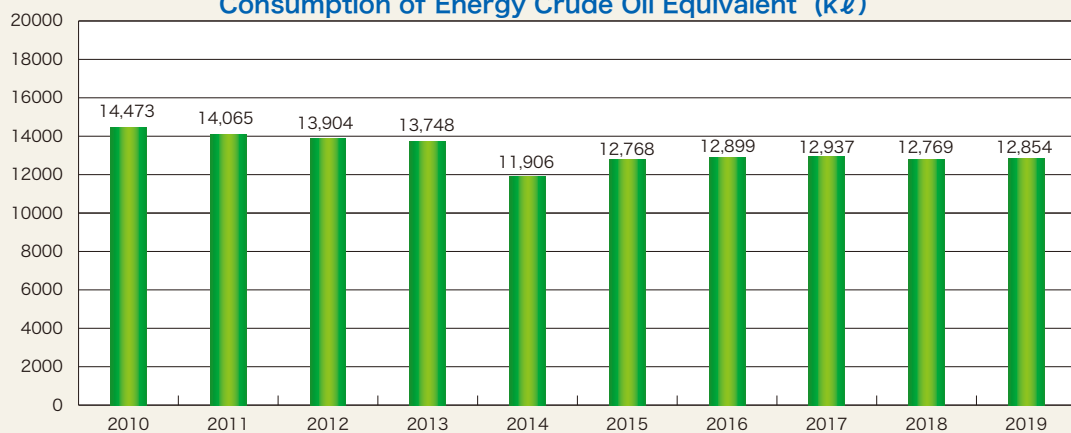
In our production activities, we consume energy to manufacture products. This process emits CO₂, a greenhouse gas. To reduce CO₂ emissions, we are implementing efforts to reduce energy use in production processes.

As investments in various types of energy-saving equipment, we are carrying out systematic measures including switching plant ceiling lighting to LEDs, migrating to high-efficiency equipment such as transformers, air-conditioners, and chillers, improving the efficiency of compressors by centralizing them and adopting inverters, and modifying steam piping. We also have implemented productivity improvements to improve energy efficiency, including installation of new equipment and improving existing equipment.

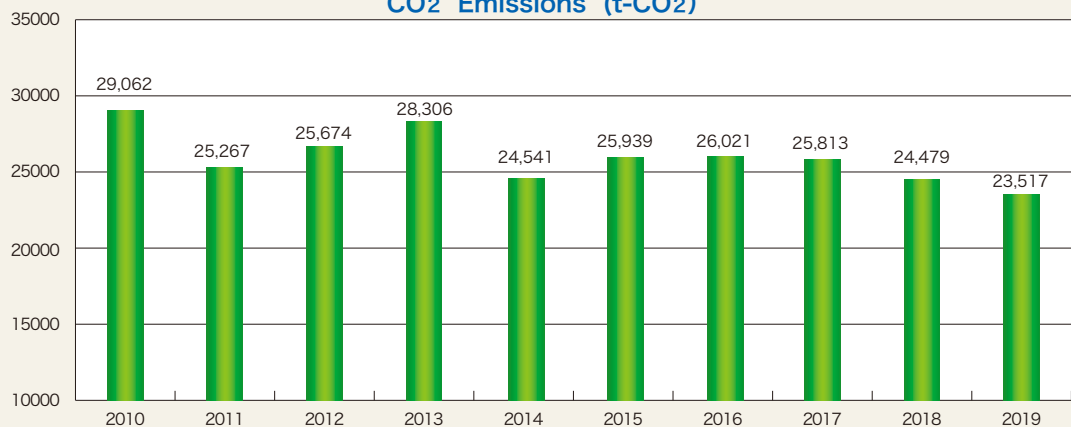
In FY2019, our production volume increased by 2.0%, while our energy use rose by 0.7%, CO₂ emissions decreased by 3.9%, and energy intensity improved by 1.3% YoY, as we advance improvements in energy efficiency.

In FY2020, we will continue to aggressively increase productivity and install more energy-saving equipment toward the objectives.

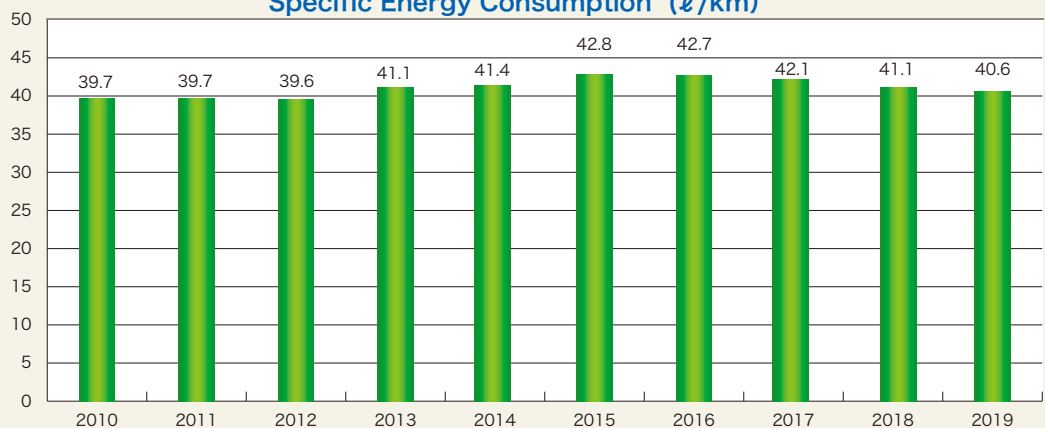
Consumption of Energy Crude Oil Equivalent (kℓ)



CO₂ Emissions (t-CO₂)



Specific Energy Consumption (ℓ/km)



Initiatives related to saving resources/reducing waste

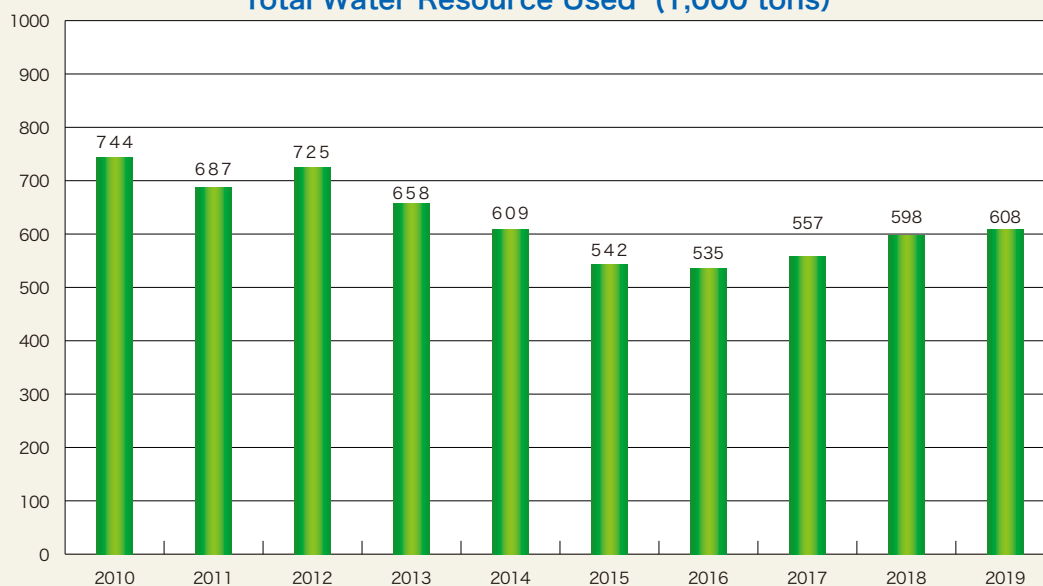
● Efficient use of water resources

We have recycled more waste water from the washing and cooling steps in the production process in order to effectively conserve water resources.

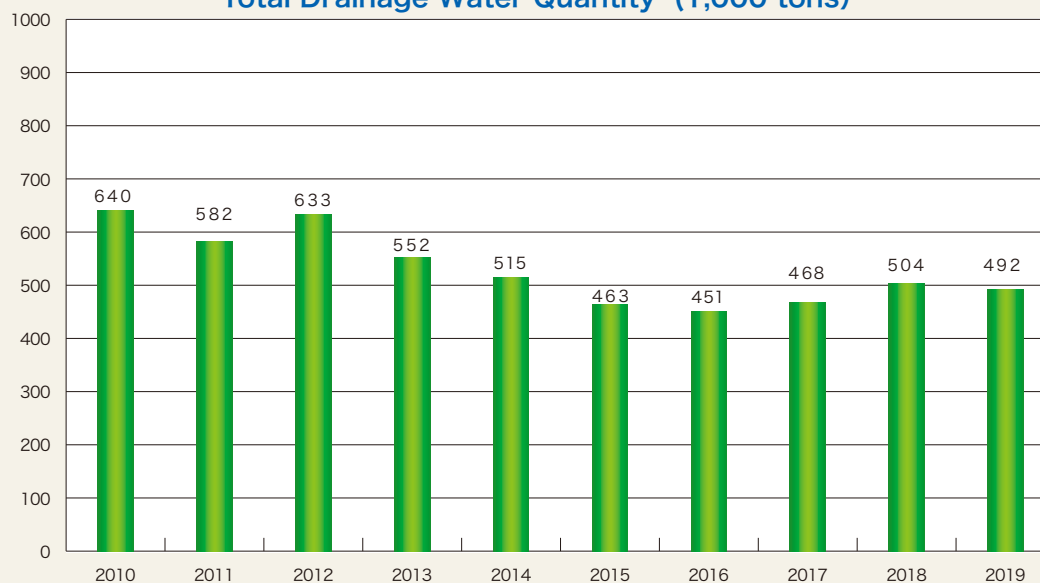
As a result of increased production activities at the Shiga Plant, in FY2019 total intake of water resources was up 101.7% YoY, rising for the third year in a row. At the same time, total water discharge was down 2.4% YoY.

In FY2020, we will carry out activities to put a stop to this increasing trend in total water intake by reviewing unnecessary use of water resources.

Total Water Resource Used (1,000 tons)



Total Drainage Water Quantity (1,000 tons)



● Initiatives to reduce waste matter

We are committed to waste reduction in order to protect the global environment. In order to not only reduce waste generation but also effectively use resources, we push forward reuse and recycling approaches.

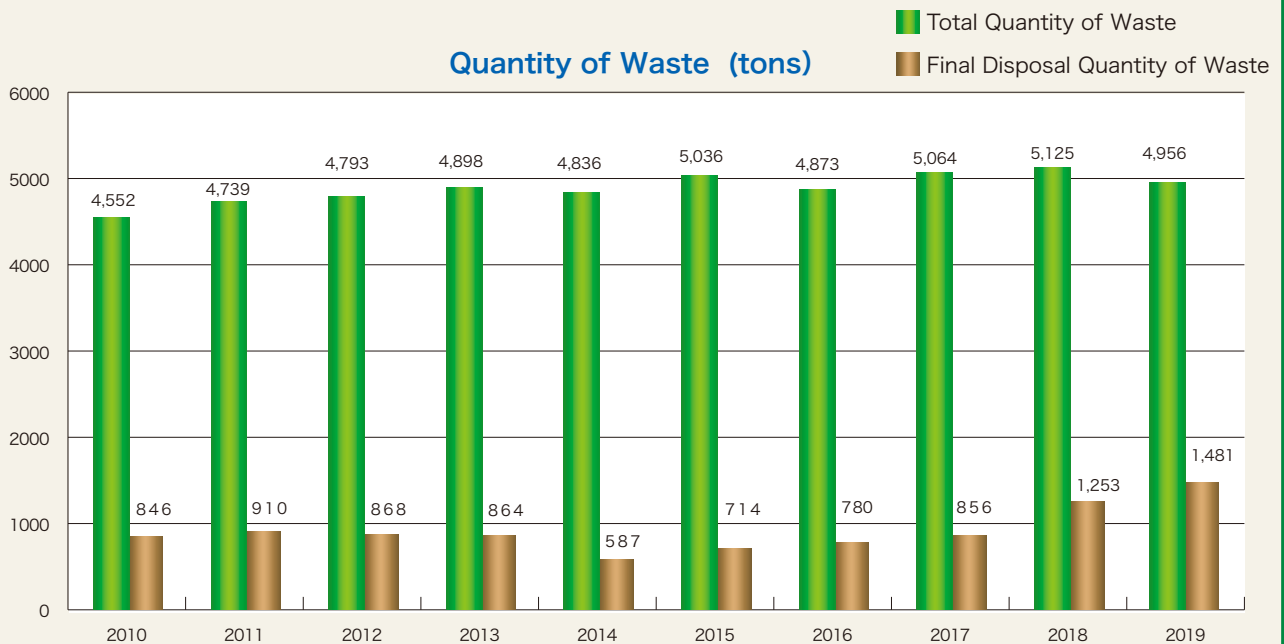
While total materials intake in FY2019 was up 2.8% YoY to 34,460 t due to increased production, total waste was down 3.3% YoY to 4,956 t as we successfully carried out efficient production.

The final waste disposal volume was up 18.1% YoY, as its increasing trend continued for the fifth consecutive year. In FY2020, we will continue efficient production in addition to striving to put a stop to this increasing trend in final waste disposal volume.

Total Quantity of Materials Used (tons)



Quantity of Waste (tons)



Initiatives to reduce the release of chemical substances

In accordance with the Law concerning Pollutant Release and Transfer Register (PRTR Law), we notify the regulatory authority of the amounts of chemical substances that are discharged into the environment after their use in the manufacturing process and make efforts to reduce them.

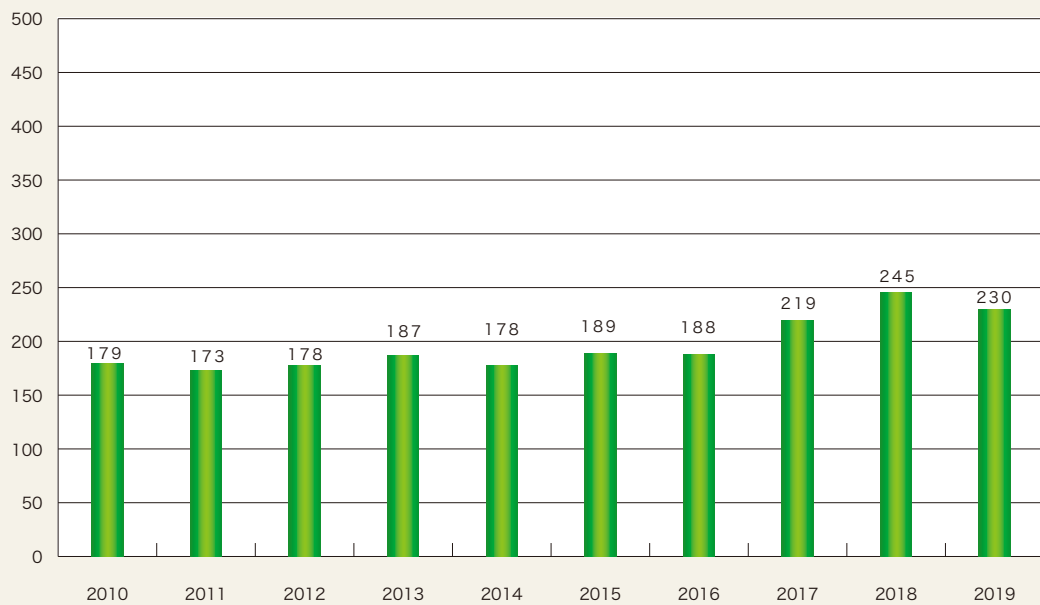
While in FY2019 emissions were up 15.4% YoY due to changes in types of inputs and other factors, transport volume was down 5.9%.

In FY2020, we will carry out initiatives aiming to achieve our medium- and long-term plan target of a reduction of 20% vs. FY2016.

Total Emissions (tons)



Total Quantity Moved (tons)



Overall environmental burdens from business activities in FY2019 (material flow)

We assess the environmental burdens from various emissions (OUTPUT) generated as a result of DYNIC's business and production activities involving raw materials, energy, and water resources (INPUT) in order to more effectively conserve those resources through more efficient use.

We were able to reduce SOx emissions significantly as a result of changing the types of fuel used to obtain energy. At the same time, our emissions of substances subject to PRTR regulations increased in volume due to the types of products produced.

In FY2020, we will carry out further initiatives to put resources to effective use.

INPUT

◆Energy consumption : 12,854,000 L (of oil equivalent)

Power (Purchased) : 28,265 MWh

LNG : 1,516 tons

City Gas : 2,868,000 m³

Bunker A : 369,000 L

LPG : 27 tons

Gasoline : 10,000 L

◆Water consumption : 608,000 tons

Groundwater : 385,000 tons

Industrial water : 174,000 tons

Clean water : 50,000 tons

◆Total raw material input : 34,460 tons

Businesses



【 Dynec product groups 】

Publishing and Stationery Products/Print Media Supplies/Nonwoven Fabric Products/Apparel/

Household Products/Industrial Products/Special Embossed Products/Foil, Films, and Paper Products

OUTPUT

◆Greenhouse gas (CO2 emissions)

Emissions attributable to production process : 23,517 t-CO2

Emissions attributable to product logistics : 1,118 t-CO2

※Product logistics activities are outsourced to affiliated companies.

◆Emission into the atmosphere

PRTR substances : 315 tons

NOx : 14.7 tons

SOx : 0.4 tons

Dust : 0.2 ton

◆Discharge into water system

Discharge : 492 tons

BOD : 0.4ton

COD : 1.4 tons

◆Discharge into soil : N/A

◆Chemical substances (PRTR substances)

Emissions into the environment : 315 tons

Transferred as waste : 228 tons

◆Total waste generation : 4,956 tons

Incineration/landfill disposal volume : 1,481 tons

Recycled wastes : 1,739 tons

Volume of valuables : 1,736 tons

Recycling rate : 70%

Environment-Related Products

Dynic Corporation is working hard on the development of various products that contribute to the development of society and creation of a life of affluence. We believe the delivery of such new products to society will lead to our contributing to society through our business activities.

At Dynic Corporation, we define "products that take the global and living environments into consideration" as "environment-related products" .

[Products that take the global environment into consideration]

■ Products that reduce the burden on the environment

▶ PVC-free, plastic-free, or solvent-free products

Non-vinyl-chloride file folders (eco-folders), olefin based cloth, paper bank transfer cards, EVA containers, waterborne coating book-binding cloth for file binders and notebooks, etc.,

▶ Products using recycled paper, recycled fiber, recycled resin

Paper cloth using recycled paper, paper cloth for use in textbooks, paper cloth for use in backing, * carpet using recycled polyester, etc.

▶ Products using sustainable natural resources

* FSC certified paper cloth (Epalon), rayon 100% color nonwoven fabrics (Panelon color sheet), etc.

■ Products that take treatment and disposal into consideration

▶ Products that take ease of disposal into consideration

Paper blades for cutting polyethylene food wrap and aluminum foil, paper lid materials for milk drinks, etc.

▶ Products that contribute to resource-saving / 3R (Reuse, Recycle, Reduce)

Crack mitigation wallpaper, Reuse toner cartridges; reuse TTRs; sub-cassettes for refill, automotive headliner material (lightweight), desiccant for organic EL devices (durable), etc.

[Products that take the living environment into consideration]

▶ Products that provide comfortable spaces

Deodorant Panelon filters, antimicrobial and deodorant wallpaper, negative-ion-radiating wallpaper, filter materials for air purifiers, antivirus wallpaper, sound-absorbing nonwoven floor fabrics, etc.

▶ Products useful for maintaining the freshness of health products/food

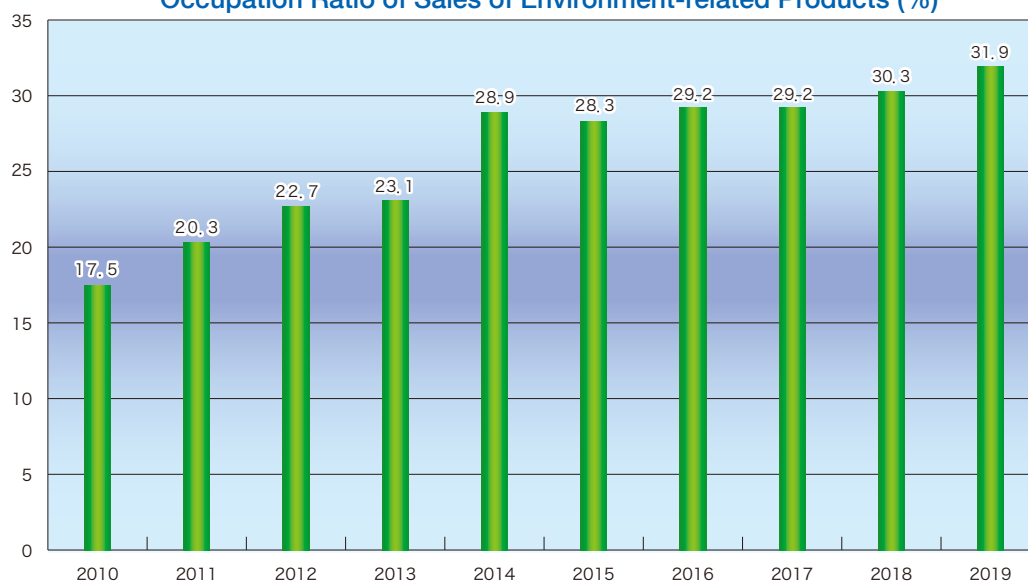
Water-resistant food packaging, food freshness preservatives, NIKKUSEBEN nylon-coated labels* (Echo-tech registered), mold-releasing film for cataplasm, etc.

▶ Various antimicrobial/deodorant products

Cloth for antimicrobial book binding, antimicrobial packaging materials, etc.

Products marked with an asterisk [*] are third-party certified products.

Occupation Ratio of Sales of Environment-related Products (%)



You can find the individual explanations of such environment-related products on our home page.

With "Contribute to society through environment-related products" as a key phrase, we have actively promoted product development.

As a result, in FY2019 environment-related products accounted for 31.9% of our net sales, much higher than the target level.

In the future, we intend to further increase the percentage of our overall sales comprising environment-related products, thereby contributing to society.

FY2019 Environmental Activities

Reducing the environmental burden - Installation of energy-saving equipment

●Chiller upgrades

The Saitama Plant is advancing energy-conservation efforts through upgrading the chillers used to produce equipment coolant water.

By upgrading four chillers at the plant in total, in addition to the two units in the photo below, we expect to realize large-scale reductions in electricity consumption.



●Upgrades to high-efficiency transformers

During this fiscal year the Shiga Plant upgraded its 1,000 KVA transformers to high-efficiency models.

Switching to to high-efficiency transformers has greatly reduced power loss and CO₂ emissions, as well as reducing operating noise.



FY2019 Environmental Activities

Reducing the environmental burden - Installation of energy-saving equipment

●Switching to LED lighting

While at the Moka Plant most lighting in the workplaces for individual processes, the automated warehouse, and the office already had been switched to LEDs, this year the switch to LED lighting was completed by upgrading all remaining lighting, in corridors, warehouses, aging rooms, and elsewhere.



●Keeping down temperature increases through use of heat-reflecting paint

The roofs of plant buildings at the Fuji Plant were painted in heat-reflecting paint. This has helped reduce energy consumption (by 12% vs. FY2018, based on results in July and August) by restraining temperature increases inside the buildings caused by sunlight.



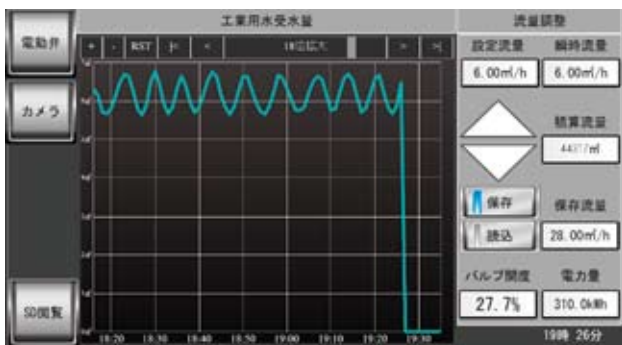
FY2019 Environmental Activities

Reducing the environmental burden - Effective use of resources

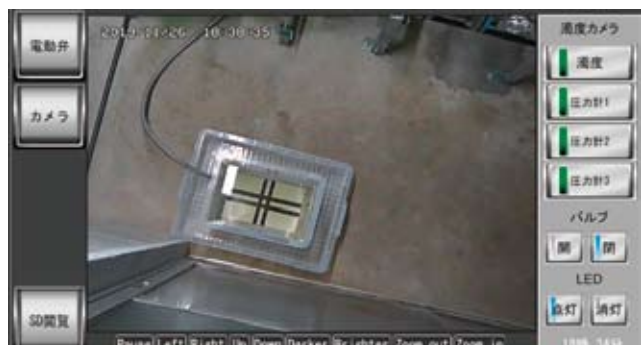
●Adoption of IoT technology in industrial water receiving equipment

Remote regulating and monitoring equipment was adopted in the industrial water receiving equipment, which is installed at a location removed from the plant (approximately two kilometers away).

This has made it easier to secure stable water volumes and quality by enabling constant, remote regulation of water volumes received and checking of the turbidity of water received, reducing waste of water resources as a result.



Water-receiving volume-regulating screen



Water-receiving turbidity-monitoring screen

●Switching to overhead piping for fire hydrants

We identified corrosion and leakage due to aging of the water pipes used for fire hydrants. Since the piping was installed underground, considerable effort was required to identify the locations of problems. To counter this difficulty by simplifying the detection and inspection process, we are moving forward on switching systematically to overhead piping for fire hydrants.

This not only will reduce consumption of water resources by preventing leaks but also will lead to savings on electricity costs by reducing well pump operation.



FY2019 Environmental Activities

Working together with the local community

●Participation in trash pick-up campaign

Every year, the town of Taga, where the Shiga Plant is located, holds cleanup activities around May 30 (gomi zero, or "zero waste" day), designated by Shiga Prefecture as a day for environmental beautification activities.

We support these activities, and on Sunday, May 26, we conducted cleanup activities along National Highway 306. Since last year, participants have worn orange vests to increase their visibility.



Cleanup activities along the Seri River, organized by the town of Taga, also take place around December 1, designated by Shiga Prefecture as the basis date for environmental beautification efforts.

We support these activities as well, and on Sunday, December 1, we conducted cleanup activities along the Seri River.



FY2019 Environmental Activities

Working together with the local community

●Litter removal on roads around the plant perimeter

The Saitama Plant conducts monthly litter-removal activities on roads around the plant perimeter. These activities were conducted 12 times during FY2019.



●List of trees planted

We prepared a list of the trees planted on the grounds of the Saitama Plant. Tree observation and classification were conducted throughout the year.

名称	高さ	花の色	花の時期	実の形	葉のつき方・大きさ
カクレミノ	9~15m	黄緑	6~8月	扁球形	互生・10cmくらい
ヤブナ	2~4m	白	10~11月	球形・黒	互生・30cmくらい
キンシバイ	~1m	黄	6~7月	卵形	対生・2cmくらい
モミジ	5~15m	暗赤色	4~6月	翼果	対生・10cmくらい
カキ	10~15m	黄~緑	5~6月	球形	互生・
ザクロ	5~6m	朱赤	6月	球形	対生・5cmくらい
サンゴジュ	5~15m	白	6~7月	長球形	対生・15cmくらい
ツゲ	1~4m	淡黄~白	3~4月	球形	対生
サツキ	~1m	朱赤・紅紫	5~7月	長球形	互生・3cmくらい
ヒラドツツジ	1~3m	白・紅・濃紅紫	4~6月	針状	互生・8cmくらい
ドウダンツツジ	1~2m	白	4~6月	さく果	互生・3cmくらい
サザンカ	1~6m	白・赤	10~11月	卵形	互生・5cmくらい
ツバキ	3~10m	白・赤	2~4月	球形	互生・10cmくらい
ナツツバキ	10~20m	白	6~7月	卵形	互生・8cmくらい
カナメネ子	2~5m	白	5~8月	楕円球形	互生・8cmくらい
カリン	3~10m	淡紅	4~6月	球果	互生・
ウメ	3~10m	白・淡紅・紅	2~3月	球形	互生・8cmくらい
オオシマザクラ	10~15m	白~淡紅	4月		互生・10cmくらい
スモモ	5~6m	白	4~5月	球形	互生・
ソメイヨシノ	10~15m	淡紅	3~4月	球形・赤~黒	互生・10cmくらい
ハナカイドウ	3~8m	紅	4月	球形	互生・8cmくらい
リンゴ	8~10m	淡ピンク	4~6月	球果	
シイ	10m~30m	-	5~6月	卵状円錐形	
ヒマラヤスギ	20~30m	淡緑色(雌花)	10~11月	卵形	針状葉
クロマツ	~40m	紫紅(雌花)	4~5月	卵形	針葉
ナツミカン	3~6m	白	5月		
アオキ	1~2m	緑~紫褐色	3~5月	長球形	対生・10cmくらい
ハナミズキ	5~12m	白・紅	4~6月	核果	対生・10cmくらい
サルスベリ	3~9m	紅紫・白・ピンク・淡紫	7~9月	球形	互生・5cmくらい
ナンテン	1~2m	白~朱赤	6月	球形・赤	互生・5cmくらい
キンシクセイ	4~6m	黄	10月		対生・10cmくらい
ヒヨドリギ	4~8m	白	11月	長球形	対生・5cmくらい
ハクモクレン	7~10m	白	3~4月	袋果	互生・15cmくらい
モチノキ	15~25m	黄緑	4月	球形・赤	互生・7cmくらい
サカキ	3~5m	白	6~7月	球形	互生・8cmくらい
ドウジュロ	8~10m	淡黄緑	5~7月	扇球形	
アブサイ	~1.5m	淡黄緑	6~7月		対生・15cmくらい
ロウバイ	1~3m	黄	1~2月	長球形	対生・2cmくらい

●Community dialogue

During FY2019, the Saitama Plant cooperated in the following community activities and other efforts.

May 2019: Informal discussions held with neighborhood associations in the plant vicinity

July 2019: Participation in the local neighborhood association's summer festival (children's portable shrine)



FY2019 Environmental Activities

Working together with the local community

●Contributing to the community

With the cooperation of the town of Taga's Industry and Environment Department, the Dynic Astro Park Observatory inside the Shiga Plant hosts an astronomic observation club using the observatory's astronomical telescope as well as astronomic observation tours in which participants carry compact telescopes around for viewing the stars from different spots. These are intended to build stronger ties with local residents and numerous other participants. During FY2019, three events were held to observe nature through the stars, attracting large numbers of participants to the facility.



●Digital planetarium

A full-fledged digital planetarium was installed in the observatory to mark the centennial of the Company's founding. The experience it provides of a simulated trip through space has been very well received.



2020 Environmental Report



Environmental Report 2020

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