

## Environmental management

### Environmental vision

**INOAC respects the natural environment of our irreplaceable earth and contributes to realizing an affluent society that is comfortable to live in through technology harmonized with our environment and environment-friendly corporate activities.**

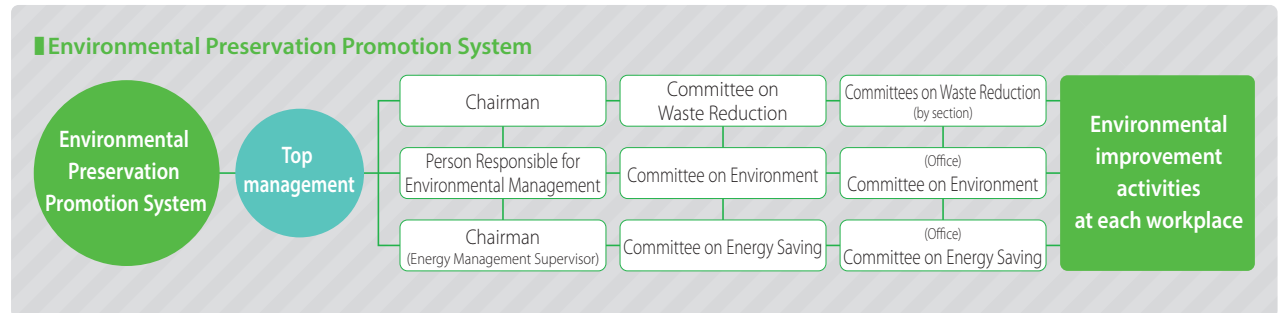
### Environmental policy

- (1) We observe environmental laws and regulations, thoroughly ensure compliance, and engage in business activities that society can trust.
- (2) We work to reduce CO<sub>2</sub> emissions such as by saving energy, to help achieve a carbon neutral society and prevent global warming.
- (3) We work on resource conservation, waste reduction and recycling to contribute to a recycling-oriented society.
- (4) We properly manage chemicals that could impact the environment and seek to preserve our environment by reducing risk.
- (5) We actively develop products with less environmental impact, contributing to the conservation of nature throughout the life cycles of the products.
- (6) We engage in environmental management, educate employees about the environment, implement environmental audits, and continue to improve.
- (7) We contribute to establishing a sustainable society through local environmental preservation work as good corporate citizens.



### Environmental management system

In order to engage in environmental activities in an organized fashion, the Person Responsible for Environmental Management implements integrated management related to the environment, under the direct control of top management. In addition, the company as a whole also engages in environmental activities under the direction of the Committee on Environment. We have organized specific section committees to handle industrial waste and energy saving, and we coordinate environmental management through these committees while seeking further improvements in mitigating our environmental impact. As we strengthen the connection between environmental management and our main business in managing our objectives, we are also supporting the appropriate efforts where changes are taking place, such as newly built business locations, buildings, and production lines.



### Internal environmental audits

We implement internal environmental audits to check the operational state of our environmental management system. The audit team consists of two to three employees who have completed the auditor training prescribed by the company. The team checks if the environmental management system is being properly operated, maintained and improved. We create audit guidance and take steps such as revising checklists to emphasize efforts toward goal achievement and compliance in order to improve the quality of the audits.

### External environmental examinations

The Japan Quality Assurance Organization (JQA), an external certification body, conducts examinations to check if our environmental management system is functioning properly in accordance with ISO 14001:2015.

In conjunction, expanded examinations were conducted in FY 2020 at the Kira Plant and the Kyushu INOAC Yukuhashi Plant. No areas were found to be in need of improvement as a result, and the auditors determined that the system is being maintained. Issues pertaining to legal and regulatory compliance efforts and corrections to non-compliant matters were addressed in the overall findings.

## Environmental management

### Summary of major activities in FY 2020

The results of INOAC's major environmental efforts in FY 2020 are shown in the table below. In terms of reducing CO<sub>2</sub> emissions resulting from energy use, the Committee on Energy Saving continued to take the lead in various efforts. However, fluctuations in production volume due to the COVID-19 pandemic resulted in lower production efficiency and we were unable to reach our targets. In terms of reducing waste disposal, we moved forward in reducing emissions, including recycling. However, we were unable to reach our targets because market conditions for resalable waste have become stricter each year. Volume of PRTR substances released decreased from the previous year due to progress in replacing materials that contain these substances and other efforts, although not enough to achieve our goal.

Initiative	Targets in FY 2020		Achieved in FY 2020	Result
Reduce energy consumption	Factory-related	Intensity (CO <sub>2</sub> emission/production sum) 0.548 or less [ CO <sub>2</sub> emissions 59,149 t-CO <sub>2</sub> (2019 result) ]	Measured units 0.581 [ CO <sub>2</sub> emissions 52,172 t-CO <sub>2</sub> (2020 result) ]	
	Office-related	CO <sub>2</sub> emissions 170,100 kg-CO <sub>2</sub> or less	CO <sub>2</sub> emissions 315,601 kg-CO <sub>2</sub>	
Reduce waste	Factory-related	Measured units (CO <sub>2</sub> treated amount/production sum) 0.0573 or less [ Treated amount 7,245 t (2019 result) ]	Measured units 0.0763 [ Treated amount 6,847 t (2020 result) ]	
	Office-related	Treated amount 1,462 kg or less	Treated amount 570 kg	
PRTR substances reduction in release and transfer amounts	Measured units ((amount emitted + amount transferred)/production sum) 2.09 or less [ Amount emitted + amount transferred 209,635 kg (2019 result) ]	Measured units 2.27 [ Amount emitted + amount transferred 170,961 kg (2020 result) ]		
Environmental improvement activities	Cases of environmental improvements (total in entire company) 1,227 cases or more	1,763 cases		
Environmental communication	Issuance of CSR report	Issued		

Target reached Not yet reached but progressing Target not reached

\* Business locations from which environment data is collected to summarize major activities are shown below.

INOAC Corporation	Anjo Plant, Sakurai Plant, Kira Plant, Nanno Plant, Yana Plant, Ishimaki Plant, Ikeda Plant, Ikeda 2nd Plant, Ohno Plant, Jinno Plant, Head Office (Nagoya/Tokyo), Osaka Branch, Hanyu Plant, Jinno R&D Center
INOAC Housing & Construction Materials Co., Ltd.	Ibigawa Plant, Kofu Plant
Kyushu INOAC Co., Ltd.	Yukuhashi Plant, Kikuchi Plant, Ukiha Plant, Kitakyushu Plant
Techno Foam Japan Co., Ltd.	Head Office, Saitama Plant
Kyushu Color Foam Co., Ltd.	Higashi Nihon INOAC Co., Ltd.

\* The Kira Plant and Yukuhashi Plant (Kyushu INOAC) were added to the data collection range

### Compliance with environmental laws and regulations

At INOAC, we identify environmental laws and regulations that are relevant to our business activities, and manage them on a daily basis. Through monitoring, measurement, and assessment at each plant, we prevent environmental pollution and otherwise conduct environmental risk management to ensure that we properly comply with laws and regulations related to noise and industrial waste treatment as part of our environmental management system. In accordance with business ethics, we will continue strictly adhering to environmental preservation agreements with local government, including environmental laws and regulations.

#### Major environment-related laws and regulations pertaining to our business

Air	Air Pollution Control Act, Automobile NOx PM Law, Act on Special Measures against Dioxins
Water quality and soil	Water Pollution Prevention Act, Purification Tank Act, Sewerage Act, Soil Contamination Countermeasures Act
Noise, vibration & odor	Noise Regulation Act, Vibration Regulation Act, Offensive Odor Control Act
Chemical substances	Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof, Poisonous and Deleterious Substances Control Act
Resource conservation & recycling	Act on the Rational Use of Energy, Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging, Act on Rational Use and Appropriate Management of Fluorocarbons, Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes, Waste Management and Public Cleansing Act
Disaster prevention	Fire Service Act, High Pressure Gas Safety Act
General & others	Factory Location Act, Act on Improvement of Pollution Prevention Systems in Specified Factories, Radio Act

\* Local government ordinances are omitted \* Some are abbreviated

### Training for emergencies

We identify accidents and emergencies according to the characteristics of each business facility, and periodically conduct training to prevent environmental pollution resulting from earthquakes, fires and leakage of oils and raw materials. Disaster prevention trainings planned for spring and fall at the Anjo Plant (Aichi Prefecture) were cancelled due to the COVID-19 pandemic, but spill prevention training was conducted in manufacturing sections on November 12, 2020. In other facilities, training for emergencies and urgent circumstances is conducted on a preparatory basis.



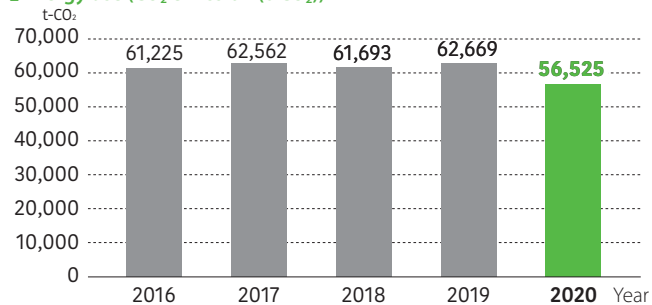
Anjo Plant / Training for emergencies

## Reducing our environmental footprint

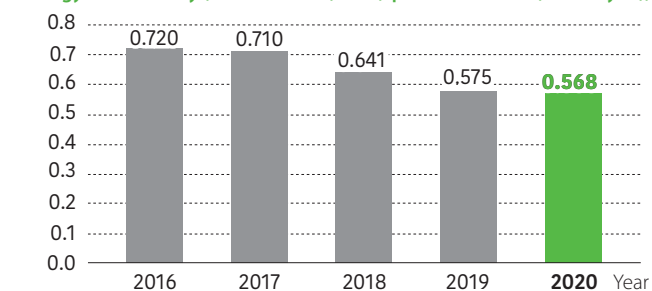
### Reduce energy consumption

To help to prevent global warming, we have been engaged in efforts to reduce CO<sub>2</sub> emissions by promoting energy saving. Specific measures being taken include covering material drying ovens with heat insulation sheets to reduce energy loss from heat escaping, installing inverters into cooling tower fans to reduce energy usage, and using thermal insulation boards to insulate buildings. Our CO<sub>2</sub> emissions resulting from energy use in FY 2020 decreased by approximately 10% compared to FY 2019, and decreased slightly in terms of intensity.

#### Energy use (CO<sub>2</sub> emission (t-CO<sub>2</sub>))



#### Energy use intensity (CO<sub>2</sub> emission (t-CO<sub>2</sub>)/production sum (million yen))



### Efforts

#### Key efforts to promote energy saving in 2020

Insulating buildings using INOAC's *Thermax* thermal insulation boards

Reducing energy usage by utilizing heat exhaust from compressors to heat rooms

Conducting air leakage patrols and eliminating air leakages at each business location

Lining windows with INOAC's *Cell Shade* heat insulation sheets

Installing inverters into cooling tower fans to reduce energy usage

Curtaining off areas of large workspaces to improve the efficiency of air conditioning

Reducing energy loss from heat escaping by covering material drying ovens with heat insulation sheets

Installing demand meters and visualizing demand as a measure to address peak energy usage



Thermal insulation of worksites with *Thermax*



Toyohashi Plant / Heat insulation sheets as a measure for materials dryers



Curtaining off areas of workspaces

#### Other efforts to prevent global warming

INOAC is working on preventing global warming from other perspectives as well. During the summer, we hold our Summer Eco-style Campaign to educate our employees on how to save energy, such as by promoting "cool biz" energy saving attire. We are also engaged in cooperative transport and deliveries

(milk runs), a modal shift to railway and maritime transport, and consolidation of distribution bases. Furthermore, we have installed and are operating solar power generation equipment (total installed capacity 5,417 kw/h) in unused spaces on 15 different production plant sites throughout Japan.

## Reducing our environmental footprint

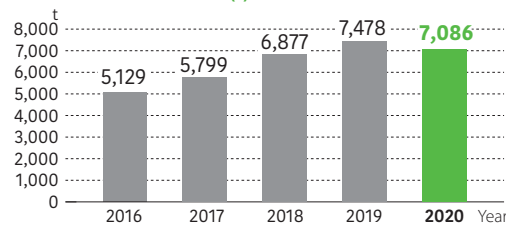
### Activities to reduce waste

In terms of waste reduction, the company-wide Committee on Waste Reduction leads efforts to improve our rate of product commercialization by reducing defects and increasing yield, and to reuse more material cutoffs. Our waste treatment amount in 2020 was 5% lower than in 2019. While our measured units of waste treated decreased, we were unable to reach our target. We are working toward reducing emissions by expanding sales of the long cushion (see article at right) made from material cutoffs, commercialization of products made from recycled materials, and other such efforts.

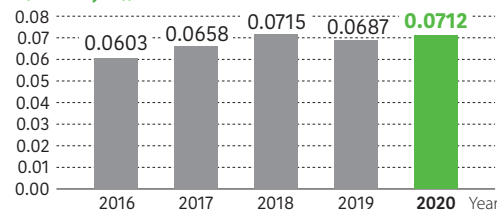
### Activities to reduce the use of environmentally hazardous substances

INOAC uses PRTR substances such as m-tolylene diisocyanate, a raw material for polyurethane foam as well as xylene and toluene which are used in coating processes. To reduce the amount handled, released, and transferred of these substances, we have made progress in replacing dichloromethane and bis phthalate plasticizer (2-ethylhexyl) which is partially left over as foaming agent, and we were able to reduce release and transfer amount as well as the output intensity of the substances compared to the previous year.

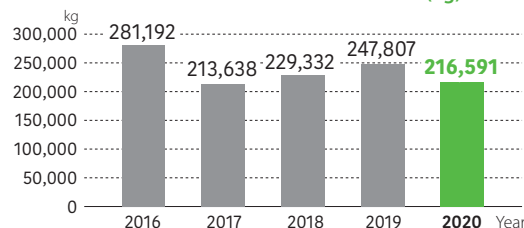
Waste treatment amount (t)



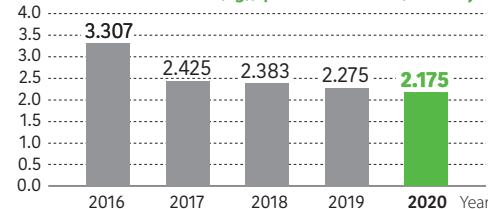
Measured units of waste treated (treated amount (t)/production sum (million yen))



PRTR substance release and transfer amount (kg)

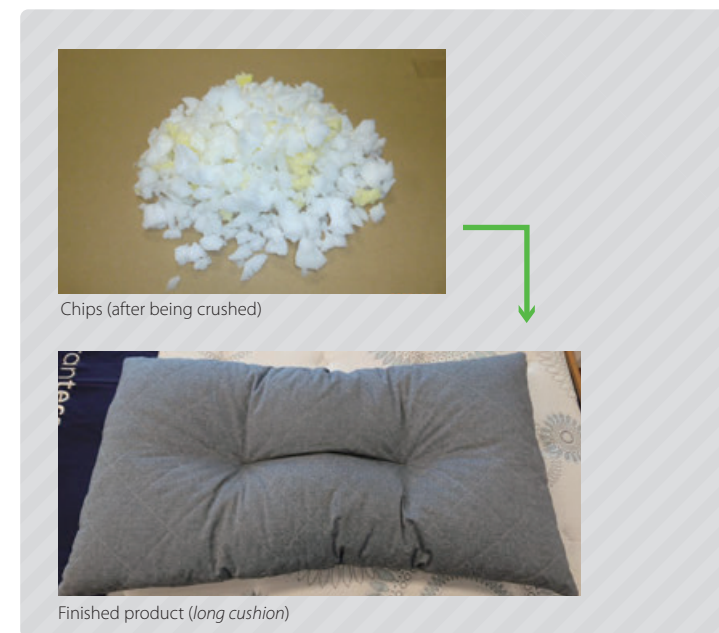


PRTR substance release and transfer amount intensity (release and transfer amount (kg)/production sum (million yen))



### Development and manufacturing of the long cushion, a recycled product

We are developing and manufacturing products with material remnants of polyurethane that we produce, crushed into chips to be used as filling for cushions. With polyurethane in chip form, cushions exhibit less deformation over long-term use, thus extending the life of the product. Products have longer replacement cycles and produce less waste thanks to longer product life and the use of unneeded material remnants that had been treated as industrial waste.



\* Business places from which environment data are collected on pages 15 and 16 are shown below.

- © INOAC Corporation, Anjo Plant, Sakurai Plant, Kira Plant, Nanno Plant, Yana Plant, Ishimaki Plant, Ikeda Plant, Ikeda 2nd Plant, Ohno Plant, Jinno Plant, Head Office (Nagoya/Tokyo), Osaka Branch, Hanyu Plant, Jinno R&D Center
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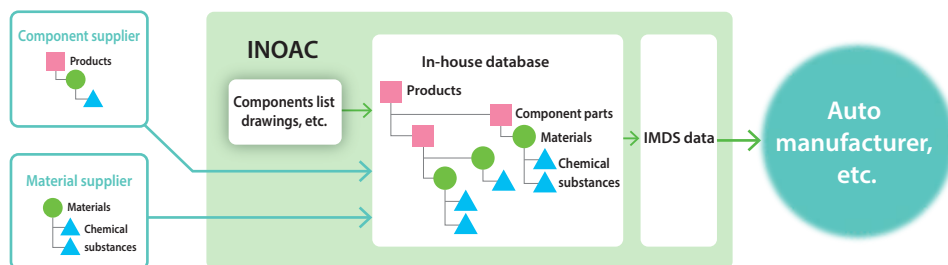


## Managing information on chemical substances

### Promoting IMDS, chemSHERPA and more

INOAC registers information on chemicals and reports it to our customers through IMDS<sup>\*1</sup>, particularly in the automotive field which is our main field of business. We have a management system to obtain the necessary information via our supply chain and to register the information into IMDS.

#### Information collection through IMDS in INOAC – reporting process and chemical management system



We also collect information and report it to our clients using the chemSHERPA<sup>\*2</sup> format, which is widely used in the industrial world, especially the electrical machinery industry.

\*1 IMDS (International Material Data System): A database for transmitting and obtaining information on materials and chemicals over the Internet for the automotive industry, which was originally developed to comply with the EU ELV

\*2 chemSHERPA: A unified format to transmit information on chemicals contained in products in the supply chain, which the Ministry of Economy, Trade and Industry took the initiative in developing

### Creating an in-house database

The Automotive Division is creating an in-house database through which information on chemical substances contained in parts and materials purchased from suppliers is identified based on information about chemical substances, and centrally managed. This has allowed us to be certain of our compliance with laws and regulations on chemical substances and client requirements which increase each year, while also helping to improve the efficiency and the reporting accuracy of information we register in IMDS and when examining the chemical substances contained in our products.

### Establishment and implementation of green procurement criteria

We ascertain what chemical substances are regulated by laws, regulations, and by our customers, based on which we create our green procurement criteria - a list of those chemical substances that we should work to reduce. We present these criteria to suppliers and use them to obtain information on chemical substances contained in raw materials to be purchased. We are also consistently monitoring the latest regulatory developments, based on which we revise these criteria once each year.

### Communication about chemical substance management

The Global Quality Assurance Division is a company-wide organization for environmental stewardship, which organizes and leads meetings for the chemical substance management sections of each department once every two months. They review the green procurement criteria, check the management system and establish or change its operating rules, and exchange opinions concerning the latest trends in chemical regulations, such as the REACH regulation and RoHS Directive. They also periodically audit the management system in each department in order to maintain and improve management systems that are appropriate and reliable.

