

# Zeon Corporation – Kawasaki Plant

## Kawasaki Plant Profile

### Main Products

Synthetic rubbers, synthetic latex

Established in 1959, Kawasaki Plant was the first plant in Japan to mass-produce synthetic rubber. It manufactures heat- and oil-resistant synthetic rubber used in automobile engine peripheral components. Synthetic latex is used in products such as rubber gloves, cosmetic sponges, and non-woven fabric. Kawasaki Plant produces many relatively high-value-added products in small quantities.



Aerial view of Kawasaki Plant

### Environment and Safety Policy

The Kawasaki Plant has formulated the following environment and safety policy, based on being a petrochemical plant that handles high-pressure gases as well as hazardous and poisonous substances, and which is located in the Keihin Industrial Zone.

1. With the participation of all employees, we are committed to maintaining safe and reliable operations and to being a plant that is trusted by everyone in the local community.
2. We identify all sources of danger in the workplace, and by reducing and eliminating them, we aim to achieve zero occurrence of environmental and safety incidents and occupational accidents.
3. We strive to continuously reduce environmental impacts in all work processes and to prevent environmental contamination.
4. We comply with environment- and safety-related laws and regulations, agreements, and internal rules and regulations; we also strive to maintain and improve our level of environmental and safety performance.
5. We conduct activities to prevent damage and reduce the extent of damage in the event of a major earthquake and tsunami striking the Tokyo Metropolitan Area.
6. We strive to maintain and improve the physical and mental health of all employees, and to create a vibrant and engaging workplace.
7. We set targets and conduct activities in the areas of the environment, safety, and occupational health and safety; we aim to improve our various management systems on an ongoing basis.

## Plant Policy by the Plant Manager

In its 2030 vision, Zeon Corporation has set itself the goal of becoming “a company that lives up to societal expectations and the aspirations of employees.” The Kawasaki Plant will be living up to society’s expectations by fulfilling its role as a member of the local community. Although the regular cleanups of the Tonomachi-Yako Route, an important road running through our area, and the events that our employees plan and hold for local enterprises and for local residents’ associations, have had to be put on hold because of the COVID-19 pandemic, we intend to start holding these events again once the pandemic is under control. Going forward, we will strive to coexist in harmony with the local community to build trust and alleviate concern.



Kawasaki Plant Manager  
Noboru Watanabe

## Safety Initiatives

### Policy

Ensuring safety is our highest priority, and we are committed to eliminating accidents and incidents with the involvement of all employees. We have been integrating companywide safety activities since FY2016 with the goal of continuously improving our safety operations.

### Specific Initiatives

1. Safety education including accident case studies and hands-on experiential education
2. Various safety activities including reviewing and eliminating near-miss accidents

## Environmental Impact Reductions

### Policy

We are working to reduce our emissions of hazardous chemical substances and waste, conserve energy, and more effectively use resources in cooperation with other plants in our industrial complex.

### Scope of Environmental Management System

- (1) Organizational unit : Departments of the Kawasaki Plant, Zeon Corporation  
 Function : Manufacturing of synthetic rubbers, synthetic latex, and electronic materials  
 Physical boundary : The entire area of the Kawasaki Plant, Zeon Corporation, 1-2-1 and 1-2-2 Yako, Kawasaki-ku, Kawasaki City, Kanagawa Prefecture
- (2) Organizational activities : Business processes from raw materials procurement through to manufacturing, packaging, storage and shipping, and utility operations including wastewater discharge from the R&D Center  
 Products and services : Synthetic rubbers, synthetic latex, electronic materials and products, providing information to customers, and responding to complaints from customers and local residents
- (3) Authority and capacity of managing and influencing organizations : Head Office divisions (including design and development), partner companies (product logistics, disposal of industrial waste, etc.), vendors (companies supplying raw materials, etc.)

### Specific Initiatives

#### 1. Climate change

- We have installed the latest gas engine cogeneration system as a way to conserve resources and energy.
- We provide a steady supply of excess electricity to external users.
- We are developing processes that effectively use steam and waste heat to continue reducing our environmental impact.

#### 2. Reducing emissions of hazardous chemical substances

- We have installed butadiene and acrylonitrile recovery equipment.
- We are making improvements to equipment to prevent steam containing acrylonitrile from escaping from openings in production equipment.
- We are studying technologies to reduce acrylonitrile emissions to 1 ton or less.

#### 3. Reducing waste

- We are separating and reusing resources (recycling and heat recovery) to reduce our industrial waste.
- We are implementing steps to reduce the amount of industrial waste we generate in the first place.

#### 4. Reducing impacts on water quality

- We are reducing nitrogen compounds in our wastewater.
- We are making technology improvements to increase stability in managing load fluctuations.

#### 5. Environmental data \* "0" indicates less than 0.5 tons, and "0.0" indicates less than 0.05 tons

Kawasaki Plant		FY2016	FY2017	FY2018	FY2019	FY2020
Hazardous substances	Butadiene consumption (tons)	23,040	21,940	25,121	20,408	21,086
	Butadiene emissions (tons)	1.9	2.1	2.5	1.9	1.8
	Acrylonitrile consumption (tons)	11,007	10,780	12,551	10,006	10,385
	Acrylonitrile emissions (tons)	4	3	3	2	3
Substances subject to the PRTR Act	Consumption (tons)	43,954	44,012	50,368	40,457	41,491
	Emissions (tons)	19.0	17.5	17.2	16.9	15.4
Industrial waste	Amount generated before compacting (tons)	56,330	42,734	51,836	45,813	43,640

	Amount generated after compacting (tons)	4,704	3,293	4,198	3,738	3,626
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0
Atmospheric emissions	CO <sub>2</sub> emissions (tons)	24,324	26,531	30,878	28,988	29,285
	SO <sub>x</sub> emissions (tons)	0.1	0.0	0.0	0.0	0.1
	NO <sub>x</sub> emissions (tons)	5.9	7.7	8.5	11.8	9.9
	Soot emissions (tons)	0.5	0.6	0.6	1.1	0.6
Water resource consumption (1,000 m <sup>3</sup> ) (industrial water + groundwater + waterworks)		3,244	3,143	3,467	3,200	3,207
Wastewater	Total wastewater discharge (1,000 m <sup>3</sup> )	2,030	2,029	2,272	2,078	2,070
	COD emissions (tons)	42	56	52	48	47
	Total phosphorus discharge (tons)	0.24	0.2	0.2	0.2	0.2
	Total nitrogen discharge (tons)	72	103	110	101	90
Energy	Consumption (crude oil equivalent, kL)	14,136	12,238	14,607	12,897	13,726
	Unit consumption index (FY1990 = 100)	77%	69%	72%	81%	80%
Production equivalent (tons)		82,271	79,883	91,394	72,678	77,036

## Relationship with Employees

### Policy

We aim for employees to individually develop and improve the skills they need to perform their duties and to cultivate a spirit of cooperation among employees as we implement systematic and ongoing development of self-reliant human resources able to think and act autonomously.

### Specific Initiatives

- Education at the Monozukuri Training Center at Mizushima Plant for employees in their first to third years of employment
- Internal group trainings
- On-the-job training and other vocational education
- Education offered by external parties
- Support for personal development

## Relationship with the Local Community

### Specific Initiatives

#### 1. Publicization by the local government authority of measures aimed at reducing CO<sub>2</sub> emissions

Kawasaki City is implementing a Low-carbon Industrial Area Project, based on the Rinkai-bu Vision (which was announced in March 2017). The “Initiatives Aimed at Reducing the Carbon Dioxide Emissions of Enterprises Located in Kawasaki City’s Coastal District” pamphlet issued by Kawasaki City Government outlines the current status of low-carbon initiatives in this district, which it is intended will help to enhance awareness and understanding of Kawasaki City’s Rinkai-bu (Coastal District) as a whole.



Pamphlet issued by Kawasaki City Government (from the Kawasaki City website)

**2. Enterprise experience program initiative in collaboration with a senior high school in Kawasaki City**

The Kawasaki Plant participated (in July 2021 in the Seminar and Exhibition Booth project which formed Part 1 of the Kawasaki City Rinkai-bu Workstyle Program. This program, which targeted first-year students at Kawasaki City High School for Science and Technology, comprised a series of activities taking place throughout the year, with inputs in the form of information about enterprises located in Kawasaki City's Rinkai-bu (Coastal District) that gave students opportunities to experience business activity for themselves, and outputs in the form of presentations given by the students about what they had learned, etc. Participation in this program gave the Kawasaki Plant the opportunity not only to publicize its corporate activities, but also to build linkages with talent cultivation and recruitment activities.



Presentation materials (from the Kawasaki City website)