

## ZEON Group (Japan)

### ZEON Kasei Co., Ltd.

#### Introduction to ZEON Kasei Co., Ltd.

ZEON Kasei Co., Ltd. was established in 1981 from the “Manufactured Products Division” of ZEON Corporation. As the core company in the category of manufactured products within the ZEON Group, ZEON Kasei has developed by business expansion of “Plastic Compounds\*1,” “Packing materials,” “Housing Materials,” “Films,” “Thermal Conductive Sheets,” “Deodorants” and “Logistics materials.”

As part of our global strategy, in Feb. 2012 we launched the factory of “Powder Compounds for slush molding\*2” in China, and start its commercial production in July. Furthermore, we will launch the Vietnam plant for “STEC®,” distribution container for synthetic rubbers, in 2013.

Using the term “Ecology & Amenity,” we continue contributing to society in various fields.

\*1. Plastic Compounds

Molding materials composed of plastic resin, colorants and other additives.

\*2. Powder Compounds for slush molding

Powder compounds for one of the production methods for soft and thin skins, particularly for car interior or toys



President Yoshiro Ogura



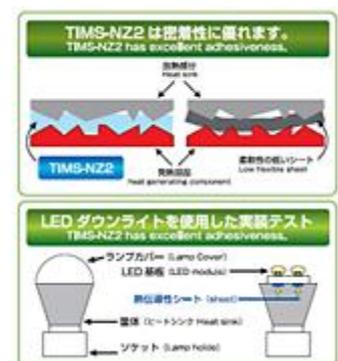
ZEON Kasei's Yamaguchi Plant

## Environmental and Safety Activities

### 1. Saving Energy with our Products

In February 2012, a major consumer electronics manufacturer adopted our high-thermal-conductivity sheet for its LED lamps. As many already know, Japan is expected to face power shortages in the summer of 2012 as it did in 2011, and LEDs are a key part of the solution to saving electricity.

Dissipating the heat that LED lamps create is crucial to realizing their energy-saving benefits. Our high-thermal-conductivity sheet was adopted in recognition of the superb balance it achieves between various properties, including lateral cooling performance (at a right angle to its exterior and interior surfaces), flexibility, and adhesiveness. We expect the application of this product to expand since heat dissipation solutions are needed not only in lighting but in a wide range of applications from electronic devices to automotive parts.



Superior adhesive performance of the high-thermal-conductivity sheet TIMS-NZ2 and diagram of LED lamp application

## 2. Reducing Waste in Our Operations

Based on the ZEON Group's medium-to-long-term environmental plan, our Ibaraki Factory has been working to reduce industrial waste sent to the landfill from 95 tons in fiscal 2009 to 0 tons by fiscal 2015. By April 2011, the plant had reduced landfill waste to 0 tons—4 years ahead of schedule!—and has continued to produce zero landfill waste as of March 2012. All worksites at ZEON Kasei, including the Yamaguchi Plant, which has already achieved the 0-ton target for landfill waste, have been landfill-waste-free since April 2011.



Ibaraki Factory

## 3. Environmental Data

ZEON Kasei Co., Ltd. Ibaraki Factory		FY2007	FY2008	FY2009	FY2010	FY2011
Substances covered by PRTR law	Number of substances	3	4	5	7	7
	Consumption (tons)	100	90	70	95	61
	Amount emitted (tons)	6.0	5.5	0.0	0.0	0.0
Industrial waste	Amount generated (before volume reduction) (tons)	611	550	530	648	529
	Amount sent to landfill (tons)	198	176	95	69	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption (1,000 m <sup>3</sup> )		23	14	22	34	41
CO <sub>2</sub> emissions (tons)		3,700	4,440	3,309	4,257	3,845
Energy consumption (crude oil equivalent, kL)		1,866	1,833	1,992	2,328	2,191

ZEON Kasei Co., Ltd. Yamaguchi Factory		FY2007	FY2008	FY2009	FY2010	FY2011
Substances covered by PRTR law	Number of substances	1	1	3	3	3
	Consumption (tons)	0.9	0.8	0.0	0.0	0.0
	Amount emitted (tons)	0.5	0.4	0.0	0.0	0.0
Industrial waste	Amount generated (before volume reduction) (tons)	76	71	187	99	91
	Amount sent to landfill (tons)	0	0	0	0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption (1,000 m <sup>3</sup> )		-	0	0	0	0.2
CO <sub>2</sub> emissions (tons)		266	234	213	231	412
Energy consumption (crude oil equivalent, kL)		110	97	105	94	147

## Activities with the Local Community

### 1. Ibaraki Factory Goes on Bus Tour to Support Disaster Region

In September 2011, as a ZEON Kasei 30th anniversary event, the Ibaraki Factory hosted a bus tour of Nakaminato and Oarai, towns in Ibaraki Prefecture that were hit hard by the Great East Japan Earthquake.

At Mentai Park, a producer of *mentaiko* (seasoned cod roe) and the first stop on the tour, tourists got a feel for how devastating the disaster was by perusing a photo gallery and checking out markers on the building showing how high the tsunami waters had reached. Afterward they visited Aqua World, the aquarium in Oarai, and shopped and did other things to lend economic support—albeit a small one—to the disaster area.

## 2. Yamaguchi Plant Hosts Plant Tour in HR Development Program

In June 2011 we welcomed 11 people, including parents and teachers from the Tabuse Agricultural Technical High School and representatives from local chambers of commerce, for a tour of the Yamaguchi Plant. The tour was part of the Regional Program to Promote Human Resources Development in Manufacturing held jointly by chambers of commerce in the Shunan area, including that of Hikari City where the Yamaguchi Plant is located. Following a video screening on the plant, visitors toured our facilities. The visit ended with a casual question and answer session and discussion. We hope to use other opportunities to interact with the local community through tours like this one.



Plant tour at the Ibaraki Factory