ZEON Group (Japan)

RIMTEC Corporation

Introduction to RIMTEC Corporation

RIMTEC Corporation is a wholly owned subsidiary of Zeon Corporation headquarted in Tokyo. It has a subsidiary, Zeon Rim Co., Ltd., and laboratory located on the premises of Zeon Mizushima Plant's plant No. 2, and also has three overseas sales centers, one at Telene S.A.S., a subsidiary in France with an R&D arm, one at Zeon Trading (Shanghai) Co., Ltd. in Shanghai, China, and one at ZCLP in the U.S.

The company's core business is the global development and sales of PENTAM®, METTON®, and TELENE® liquid molding resins for reaction injection molding (RIM). These products use high-quality dicyclopentadiene (DCPD) as their main ingredient, which is extracted from C5 fractions* using Zeon Mizushima Plant's proprietary technologies.

RIM is an innovative means of producing large molded parts in which polymerization of DCPD and molding take place at the same time in the mold. Reaction injection molded DCPD-based plastics have a smaller environmental footprint than thermoplastics as they can be molded using only half the energy.

President Masanori Sakurai

* C5 fractions

Hydrocarbon molecules containing five carbon atoms. They are the byproduct of thermal cracking, or breaking down, of naphtha, and also include ingredients for raw materials of synthetic rubber and resin.

Environmental and Safety Activities

1. Energy Conservation

RIMTEC's Mizushima Plant is working with Zeon Rim to reduce their collective energy consumption. The two sites continue to suspend the use of unused lights and devices, and engage in measures to reduce industrial waste. In fiscal 2014, as the result of initiatives to reduce the number of times product types are switched during prototyping, we were able to reduce industrial wastes generated during switchover by 40% from the level in 2012. We will continue to contribute to the global environment through a variety of activities.

2. R&D for the Global Environment

Since plastics created with RIMTEC products consume less energy than thermoplastics, we will continue our contribution to the global environment through active research and development. In fiscal 2014, we conducted performance inspections of purification tanks in Europe and received approvals under water quality standards. We plan to actively deploy purification tanks and expand their use, a move that will benefit the global environment.

3. Environmental Data

RIMTEC Corporation		FY2010	FY2011	FY2012	FY2013	FY2014
Substances covered by PRTR law	Number of substances	0	0	0	0	0
	Consumption (tons)	0.0	0.0	0.0	0.0	0.0
	Amount emitted (tons)	0.0	0.0	0.0	0.0	0.0
Industrial waste	Amount generated (before volume reduction) (tons)	52	29	52	49	23
	Amount sent to landfill (tons)	3.6	3.4	15.2	2.4	1.3
Water resources (Industrial water + Ground water + Waterworks) consumption (1,000 m^3)		-	4.4	3.6	2.2	1.5
CO_2 emissions (tons)		187	167	188	160	110
Energy consumption (crude oil equivalent, kL)		160	145	160	138	90

Activities with the Local Community

1. Participation in Omoshiro Taiken (Fun Experience)

We were present at the Omoshiro Taiken (fun experience), which is held every year at Techno Support Okayama. In 2014, around 600 children experienced a mysterious liquid which changes into plastic.

As in the previous year, the children put on white coats in order to more strongly experience the fun of chemicals, and it made a strong impression as they participated, while their eyes shined brightly.

Through these events, the company aims to convey to children, the innovators of the future, the enjoyment and the miracles of science, and also promote interest in creating things, which will thereby contribute to the ongoing development of local industry.

Children take a keen interest in the mysterious experience of chemicals

2. R&D through industry-academia collaborations

RIMTEC's Mizushima research lab is continuing joint research with the local Okayama University. In fiscal 2014, RIMTEC had its own booth at the Okayama University Knowledge Fair 2014, where it showcased the fruits of its research. People from all areas, including the corporate and government sectors, those associated with the university, and students, attended the fair and showed keen interest in RIMTEC's innovative technologies.

At Okayama University, research is being carried out through collaboration between industry and academia. The institute is briskly moving forward with contributions to industry through the development of new technologies. RIMTEC also plans to forge ahead with the development of new technologies through industry-academia collaborations.

3. Creating New Industry in the Chugoku Region

To bring the results of our joint research with academia closer to practical deployment, we hold regular study meetings with Okayama University, Hiroshima University and the Chugoku Industrial Innovation Center. We continued these efforts in fiscal 2012 and hope to spur progress toward creating new industry founded on technologies developed in the Chugoku region, and in so doing revitalize the local economy.

One of many study meetings to be held with Okayama University and the Chugoku Industrial Innovation Center

4. Next-generation Power Device Research Group

As in fiscal 2013, we again participated in the Next-generation Power Device Research Group. In fiscal 2014, discussions in the Group progressed to a more technical level as participants sought to move toward more concrete initiatives. Our materials were among those introduced in discussions as next-generation high heat-resistant resin materials. Through participation in this research group, we were able to secure concrete development projects. Looking ahead, we will continue to participate in the group and make contributions to regional revitalization.

5. International Conference Presentations

At the International Symposium on Electrical Insulating Materials (ISEIM) held July 1-5, 2014, the Kyushu Institute of Technology and Waseda University each conducted presentations on insulating resin material jointly developed with our company. International interest was high in the material and its unique properties as a thermosetting olefin resin. We will continue participating in academic conferences as we expand the use of materials with low environmental impact.