

Research and Development

ZEON Corporation's R&D Center, which consists of 10 research laboratories in Kawasaki and one in Takaoka, serves as the core research and development unit of the ZEON Group (ZEON Corporation and its consolidated subsidiaries). Also, the Quality and Technology Section is shared by the Takaoka, Kawasaki, Tokuyama and Mizushima Plants. Meanwhile, ZEON Chemicals Limited Partnership Laboratory in the United States and the research group of ZEON Chemicals Europe Ltd. in the United Kingdom carry out research and development overseas.

These research units engage in research and development activities with a global perspective based on ZEON's basic R&D policy — to contribute to society by creating world-leading business through the development of unique technologies in the specific fields in which ZEON excels — in close cooperation with relevant sections.

Elastomer operations

(synthetic rubbers, latices and chemicals)

- Our research units in Japan, the United States and the United Kingdom

established a system of close cooperation as the world's leader in the area of specialty synthetic rubbers, including H-NBR (hydrogenated nitrile rubber), NBR (acrylonitrile butadiene rubber), ACM (acrylic rubber) and CHR (epichlorohydrin polymers). Under the system, these research units developed new products, new applications and new business areas. In addition, the study of appropriate compositions for various applications was promoted and relevant technical services were offered.

- For general-purpose rubbers, including SBR (styrene-butadiene rubber), BR (butadiene rubber) and IR (isoprene rubber), a thorough cost-focused production system was implemented and specialization was undertaken to develop new rubber for fuel-efficient tires and high-performance resin reforming.

- New product development was promoted for SB latices for coated paper, the major application of latices, and NBR latices for gloves. Relevant technical services were



Precision Optics Laboratory
Machining Building

offered and efforts were made to cultivate new markets.

- Regarding Quintone petroleum resin for hot-melt adhesives and Quintac thermalplastic elastomer, new product development was carried out. Efforts were also made to cultivate new markets, and technical services for various applications were offered.

Specialty materials

(specialty chemicals, specialty plastics, electronic materials, toners)

- ZEON Group's ether reaction cyclopentyl methyl ether (CPME) received an award from the Society of Synthetic Organic Chemistry, Japan for the development and commercialization of a new ether based solvent (CPME). This development is being well received, and the number of society journals in Japan and overseas covering it is increasing rapidly.

- For the ZEONEX® series amorphous cycloolefin polymer, we continued the development of products that have higher resistance to blue lasers for pickup lens in optical applications. Progress was also made in the development of products for other optical lens applications.

- For ZEONOR® series amorphous cycloolefin polymers, in addition to developing new applications and offering technical services, we worked to develop diffusion plates with special patterns and also succeeded in developing new precision optical films for use in LCD displays.

- We continued the development of information materials related products, such as photo resist and etching glass for semiconductor production as planned.

- For polymerized toners, we successfully developed color toners and commercialized them during the second half as planned. We also worked steadily to improve production technology in order to increase our production capacity in this area.



ZEONEX® for blue laser pickup lens



Simulations team