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ZEON Corporation Develops New ZEONEX® Product (ZEONEX 340R) Compatible with Blue Laser Technology

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ZEON Corporation (President & CEO: Naozumi Furukawa) has developed and established mass production technology for a new product of ZEONEX[®], which is a high-performance transparent thermoplastic cyclo-olefin polymer (COP). The new product, ZEONEX340R, will be used as a material for optical pick-up lenses compatible with both HD-DVDs and Blu-ray discs that use blue laser technology (widely regarded as the next-generation optical disk).

Currently, in preparation for full scale launch of terrestrial digital broadcasting in 2006, development of high-density optical disc media using blue laser technology, which enables the recording/playing of a large volume of high-resolution images, is advancing rapidly.

Meanwhile, existing optical resins for DVD optical pickup lenses have not been put into practical use with blue laser, due to such drawbacks as diminished light transmittance when used over long periods of time. Costly glass for lenses was required and believed to be one of the obstacles in the spread of recording/playing media using blue lasers.

However, ZEON has successfully developed ZEONEX340R, which has been proven to minimize the change in light transmittance in a lengthy, continuous operation test, and the Company has established mass production technology. ZEONEX340R will be lens material that will promote the spread of recording/playing media using blue laser technology, since it allows for manufacture of lenses by injection molding, just like existing optical resins.

The Specialty Plastics Division will start selling ZEONEX340R from November 2004, as a new product of the ZEONEX[®] series. Expected sales for fiscal 2007 are estimated at more than ¥2 billion. Demand for high-performance transparent thermoplastic resin, cyclo-olefin polymer (COP, product names: ZEONEX[®] and ZEONOR[®]) is surging in optical markets such as LCD optical film (product name: ZeonorFilm[®]), diffusion plates, mobile phones incorporating cameras, digital cameras, and DVDs. ZEON intends to aggressively continue offering new products that meet the needs of the market.

Supplementary explanation of COP

The Company is aiming at full utilization of C5 fraction, a by-product produced when ethylene and propylene are derived from naphtha. COP is made from dicyclopentadiene (DCPD) extracted and separated from the C5 fraction. ZEONEX[®], a high-grade COP originally developed and marketed by ZEON in 1990 ahead of other

companies across the globe, exhibits low water absorbency, good fluidity and high-precision molding property when heated or melted, and a lower specific gravity. Utilizing its high transparency and low double-refraction properties, it is mainly used for optical devices such as lenses and prisms for cameras on mobile phones, digital cameras, and compact cameras. It is also used in pick-up lenses for OA equipment and for optical disks, including CDs, MDs, and DVDs.

In 1998, the Company launched ZEONOR[®], a standard-grade COP with improved impact- and heat-resistant properties as well as high transparency. It is widely used in the manufacture of light guides and diffusion plates for LCDs, optical film, extensions for automobile headlights, tableware, and pharmaceutical containers and packages.



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