

KANEKA CORPORATION

February 2, 2010

New thermally conductive plastics with electric insulating properties
—Introduced as the third major thermal solution materials from Kaneka
for reducing heat generated from applications such as LED lighting—

- ◎ Kaneka Corporation (Headquarters: Osaka. President, Mr. Kimikazu Sugawara) has successfully developed thermally conductive plastics with electric insulating properties. The material is based on our modified PET resin product Hyperite® and features a combination of polyester resin and thermal conductive filler. It is designed to provide a superior thermal solution for electronic components in computers and consumer electrical appliances as well as LED light applications. In light of strong initial uptake of the new material, sales are expected to reach about 2 billion yen within five years.

- ◎ The main features of the thermally conductive plastics are as follows:
 - It is lighter than conventional thermal conductive plastics and aluminum alloys, with a specific gravity below 2.0.
 - It causes far less abrasion on metal molds and molding machines than conventional thermal conductive plastics and is processable by standard injection molding.
 - In addition to injection molding, it can also be configured for extrusion molding by altering the composition of the base polymer.
 - Molded articles are white in color with good surface finish, and can be used as is for external cladding and light fittings. They are also suitable for painting and coating.
 - Strength is similar to that of glass-reinforced polyester resin, a significant improvement over conventional thermal conductive resins.
 - It is also available in a light-resistant configuration specifically designed for the fast-growing area of LED light fittings as well as other lighting applications.

- ◎ With devices such as mobile telephones, computers, game consoles and LED lights becoming steadily more powerful in terms of output and functionality yet at the same time thinner and more compact, the development of thermal solutions for efficient thermal transfer and diffusion is an increasingly important issue. Kaneka sees the electronics business field as an important strategic field, and is strongly committed to the development of thermal solution materials for electronic devices. December 2008 saw the release of a thermal diffusion sheet called New Graphite Sheet. This was followed in April 2009 by the announcement of a new thermal conductive RTV elastomer consisting of a combination of reactive oligomer and thermal conductive filler. Thus, the new thermally conductive plastics described here represent the third major thermal solution materials developed by Kaneka.