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**AGC to Establish BUPT-AGC Ultra-High Speed Fluororesin-Based Plastic Optical Fiber Technological Combined Laboratory, jointly with the Beijing University of Posts and Telecommunications**

-- Aiming to make **FONTEX™**, a commercial plastic optical fiber enabling world's highest transmission speed, the standard in the Chinese market

**AGC** Asahi Glass Co., Ltd.

AGC (Asahi Glass Co., Ltd.; Head Office: Tokyo; President & CEO: Kazuhiko Ishimura) has decided to establish the **BUPT-AGC Ultra-High Speed Fluororesin-Based Plastic Optical Fiber Technological Combined Laboratory**, which will conduct applied research on the Company's FONTEX, a plastic optical fiber enabling world's highest transmission speed, on April 1, jointly with the Beijing University of Posts and Telecommunications (hereinafter referred to as BUPT). Nineteen researchers will be posted to the laboratory and engage in applied development and research activities, so that FONTEX will be adopted as the standard for television lines, TV device-to-device interconnection, indoor LAN lines and telecommunications lines and in the electric power industry in China.

FONTEX, which will be the subject of the research, is the world's first optical fiber product that combines high-capacity data communication at speeds of 10 Gbps (gigabit per second) and secure data transmission even when bent, which is something we could never have dreamed of achieving with the existing silica optical fibers. AGC plans to start sales of FONTEX in July 2010.

With the arrival of a high-capacity digital data communication era, the market of commercial optical cables for consumer electronics (excluding those for social infrastructure), including commercial home information electronics such as full-spec. high-definition televisions and 3D televisions, personal computers and connection of devices in data centers, is expected to develop rapidly in future, and there is an estimate that it will grow to a new market worth 150 billion yen in 2015 on a global basis.

Since the market of optical cables is also expected to grow in China due to growing needs for high-capacity, high-speed data communication, AGC will promote further research and development of FONTEX in the combined laboratory it establishes, laying the technological foundation for popularizing FONTEX. AGC will aim to have FONTEX adopted as the standard for television lines, TV device-to-device interconnection, indoor LAN lines and telecommunications lines and in the electric power industry, thereby rapidly popularizing optical telecommunication in households in China, saving energy and giving people more comfortable lives. We will accelerate the release of new products by leveraging our technological and marketing capabilities, and increase our presence in China and other emerging markets.

- For further information regarding this issue, please contact Toshihiro Ueda, General Manager, Corporate Communications & Investor Relations, **AGC**Asahi Glass Co., Ltd. (Direct inquiries to: Kenichi Oda; Telephone: +81 3-3218-5260; E-mail: infor-pr@agc.co.jp)

## Reference materials

### 1. FONTEX, a fluoro-resin-based plastic optical fiber

FONTEX is a product created based on fluorochemical technology, which is the core technology of the chemicals business of AGC. It is the world's first optical fiber product that combines high-capacity data communication at speeds of 10 Gbps (gigabit per second) and secure data transmission even when bent, which is something we could never have dreamed of achieving with the existing silica optical fibers. AGC started research and development of plastic optical fibers in 1994, jointly with Professor Yasuhiro Koike of Keio University. Our plastic optical fibers have been adopted by condominiums, hospitals, data centers and other facilities since 2000 and are highly valued. FONTEX is a new product whose functions have been further improved to match the needs of the new era, through the evolution of technologies we have cultivated.

FONTEX has the following characteristics:

i) Advantages that optical fibers (silica optical fibers, FONTEX) have over the existing copper cables:

- Allow high-speed and high-capacity data transmissions at 10 Gbps with one thin optical fiber
- Achieve energy-conservation through low-power consumption
- Available for use in the medical field owing to the electromagnetic-noiseless feature
- Capable of reducing the weight of a cable to less than one-third of the existing copper products
- Enhanced designability and flexibility of design realized by reducing the cable diameter

ii) Advantages that FONTEX has over silica optical fibers

- High potential for further high-speed transmission by lower material dispersion derived from fluoro-resin origin.
- Offers ease of handling and flexibility in wiring design with its feature of plastic-specific robustness, and is capable of data transmissions when knotted or bent
- Allows low-cost connector connection because core diameter and outside diameter of fiber can be changed arbitrarily
- Enhanced workability of terminal treatment of cables because it is safe and never breaks or get stuck

AGC participates in a research project titled "Plastic optical fiber for world's highest data transmission speed," which was initiated by Professor Yasuhiro Koike of Keio University and decided to secure a grant from the "Funding Program for World-Leading innovative R&D on Science and Technology" effective March 9, 2010. We will aim at achieving a further ultra-high transmission speed (40 Gbps or above) on a volume production level and also strive to develop an optical communication system for each application including cables and connectors.

[http://www.lucina.jp/eg\\_fontex/](http://www.lucina.jp/eg_fontex/)



FONTEX

## **2. Beijing University of Posts and Telecommunications**

Directly administered by the Ministry of Education, the Beijing University of Posts and Telecommunications (BUPT) is one of the universities that were listed in the Project “211” Universities in 1995, which aims at strengthening 100 National Key Universities. BUPT was founded in 1955 as the first institute of higher learning for teaching and research in the fields of posts and telecommunications since the liberation of China. With more than half a century having passed since then, it has developed into a university with many research fields, including majors in both humanities and sciences in addition to engineering centering on information science and technology. BUPT is one of the most important bases in China for both researching electronic information science and technology and fostering human resources in information science and technology.