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Zeon Commercializes New Crystalline Cyclo Olefin Polymers

Exploring new applications that take advantage of superior resistance to heat, chemicals, and bending stress

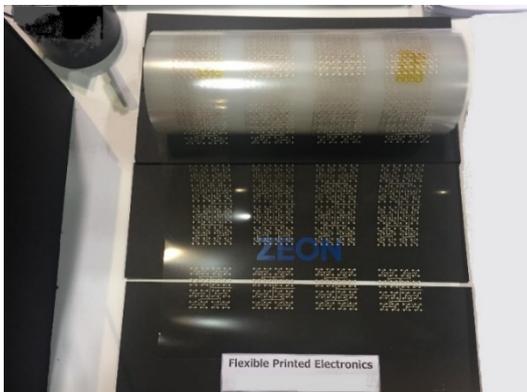
Zeon Corporation

Zeon Corporation (president: Kimiaki Tanaka) has commercialized and started production of ZEONEX® C2420, a new type of cyclo olefin polymer (COP) that has been supplemented with crystalline (stereoregular) properties. With unprecedented functions, ZEONEX® C2420 is expected to lead to new applications.

While COPs generally have an amorphous structure, ZEONEX® C2420, the latest product launched by Zeon, features a crystalline structure that allows for an unprecedented resistance to heat, chemicals, and bending stress while maintaining conventional COP properties such as low water absorption, low dielectric constant, and low dielectric tangent. More specifically, and compared to the maximum glass transition temperature of around 163°C for conventional COPs, the crystalline structure of ZEONEX® C2420 significantly enhances heat resistance (melting point: 265°C) due to its crystalline structure. It is also highly resistant, whereas conventional products exhibit a low resistance to hydrocarbon solvents. And it demonstrates excellent resistance to bending stress, enduring over 200,000 bends in tests in which conventional products tend to crack at 25,000 repetitions.

COPs are primarily used in optical applications such as camera lenses and film for displays as well as medical and biotechnology applications as materials for syringes and microfluidic chips. The novel characteristics of ZEONEX® C2420 will lead to their expanded use in new domains centered on electronic applications such as flexible substrates and dielectric layers for film capacitors.

The Zeon Group will continue to apply innovative, unique technologies to further explore the potential of COPs.



ZEONEX® C2420 application (flexible substrate for millimeter-wave radar antenna)

For further information

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