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## Fluoropolymers: Electronics

### Introduction

Fluoropolymers are essential to the European Electronics industry and irreplaceable in the manufacturing infrastructure of microprocessors used in personal, industrial and professional high-tech electronic devices. They help meet the needs of ever evolving design complexities and miniaturization in semiconductors for a wide range of electronic devices and the data transfer between these devices.

For Europe the annual benefit to semiconductor makers was estimated at €10 billion in 2006 and has been growing since.

### Applications

- Semiconductor and photovoltaic cell manufacturing infrastructure: pipes, vessels, valves, pumps, spinners, filters, seals, fluid storage containers and wafer baskets
- Printed Circuit Board and semiconductor part cushioning, packaging and release film
- Displays, touch screens, copier rolls and paper feeders
- Anti-drip, easy clean, non-adhesive additives for computers and other electronic devices
- Wires and cables used in a wide range of sectors, especially where reliability in aggressive environment and/or high volume data transmission is key. e.g medical, data centres, automotive, wireless communication etc.

### Benefits

- Improve functionality, reliability, affordability and complexity of ever smaller microprocessors for a multitude of electronic components thanks to superior chemical resistance and high purity of fluoropolymer based manufacturing infrastructure
- Increased component lifetime and Manufacturing cost savings
- Reduced environmental risk
- Excellent dielectric properties up to medium voltage
- Improved performance of high volume data transmission, better connectivity, hardwired and wireless
- Improved reliability of electronic systems that control a majority of safety critical operations in industrial use
- Improved fire safety



## Innovations

- Internet of Things: Fluoropolymers have contributed to breakthroughs in microprocessor wafer size increases, node reductions and processing efficiencies that were needed for connecting billions of “things” to the internet.
- Fluoropolymer cable constructions with excellent dielectric properties comply with demanding high volume data transfer and fire safety specifications of data centers e.g. cloud centers.
- Mini and micro coax cables for a multitude of wireless communication solutions.

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