

Colombes, 29 June 2016

Arkema awarded Pierre Potier prize for a new Kynar® fluorinated polymer for water ultrafiltration

Arkema has won the Pierre Potier 2016 prize for its latest Kynar® fluoropolymer grade with durable hydrophilic properties. This innovative material makes it possible to produce latest generation hollow fibers, more efficient and less energy intensive, specifically intended for the manufacture of ultrafiltration modules for water purification.

Access to drinking water is a major global issue, and, from its creation, Arkema made water management one of its six research and development platforms.

The innovative solution developed by Arkema which has won this award entails the development of a new fluoropolymer grade with lasting hydrophilic properties. The fruit of six years' research and innovation at Arkema's Lacq research center, this new material makes it possible to manufacture latest generation hollow fibers used in ultrafiltration modules.

The membrane filtration technology is widely used in water treatment and wastewater recycling; the water is fed under pressure through long hollow fibers that retain suspended solids, impurities and bacteria.

Developed in partnership with Polymem, a French manufacturer of modules for water filtration, this latest material, by combining the outstanding properties of Kynar® PVDF with a sustainable hydrophilic characteristic, provides an effective and innovative solution to the needs of the market in terms of membrane performance and energy consumption.

While maintaining the quality of filtration for suspended solids, bacteria and viruses, it ensures a 20% increase in the volume of treated water – for a constant energy consumption – while also significantly extending the service life of the filtration systems from 5 to 10 years.

This latest membrane solution is already being marketed and undergoing full-scale testing in a municipal water treatment plant in Toulouse to meet the many water purification needs of communities, industries and households.

This innovation draws on controlled radical polymerization, a unique technology developed by Arkema's R&D which ensures a perfectly controlled arrangement of the polymer's various molecules on a nanometric scale. It is thanks to this technology, called BlocBuilder®, that this new material combines hydrophilic properties with the outstanding mechanical strength and chemical stability of Kynar® PVDF.

A designer of materials and innovative solutions, Arkema shapes materials and creates new uses that accelerate customer performance. Our balanced business portfolio spans high-performance materials, industrial specialties and coating solutions. Our globally recognized brands are ranked among the leaders in the markets we serve. Reporting annual sales of €7.7 billion in 2015, we employ approximately 19,000 people worldwide and operate in close to 50 countries. We are committed to active engagement with all our stakeholders. Our research centers in North America, France and Asia concentrate on advances in bio-based products, new energies, water management, electronic solutions, lightweight materials and design, home efficiency and insulation. For the latest, visit www.arkema.com

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