Durable hydrophilic water filtration membranes granted a new certification

The new Neophil™ PVDF hollow fiber ultrafiltration membranes have been granted NSF/ANSI 61 certification for drinking water production. This certification will speed up the commercial development of this membrane technology developed jointly by Arkema and Polymem in the global drinking water market growing by 10% yearly.

After several years of research, Arkema has developed an innovative Kynar® fluorinated polymer grade which combines durable hydrophilic properties with the outstanding mechanical strength and chemical stability of PVDF.

Using this unique material from Arkema, Polymem, a manufacturer of membranes for water filtration, has developed ultrafiltration modules using Neophil™ PVDF hollow fibers which have now passed certification tests under standard 61 of the American National Standards Institute (ANSI) and NSF International (NSF) for drinking water quality.

The NSF/ANSI 61 certification now allows the Arkema/Polymem non-exclusive partnership to position itself immediately on the North American market and build the first facilities using Polymem Neophil™ PVDF hollow fibers for the production of drinking water.

Benefits of this durable hydrophilic technology compared to conventional systems include much finer filtration (suspended solids, bacteria and viruses), higher (+ 20%) volume of water filtered for constant energy consumption, and extended lifetime of filtration systems from 5 to 10 years.

This latest Kynar® fluorinated polymer grade, developed thanks to Arkema’s research and expertise in controlled radical polymerization*, points the way to solve problems resulting from gradual loss of permeability and clogging of pores that membrane manufacturers encounter. This Kynar® PVDF grade is available from Arkema for all membrane manufacturers eager to explore this new technology.

*Controlled radical polymerization: unique technology, called BlocBuilder®, developed by Arkema’s R&D which allows a perfectly controlled architecture of the polymer’s various molecules on a nanometric scale.

Kynar® is a registered trademark of Arkema.

Neophil™ is a trademark of Polymem.

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 €7.5 billion in 2016, we employ approximately 20,000 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. www.arkema.com

Polymem, French independent SME located in the Toulouse area, established in 1997 by two engineers specializing in hollow fiber membranes for water treatment, manufactures water filtration membranes and modules for municipal, industrial and commercial markets. With over 250 installations worldwide, the company’s know-how for the sector’s OEMs and distributors relies on a comprehensive range of both standard and customized filtration membranes and modules in order to design reliable and cost-competitive membrane systems.
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