

LANXESS at Aquatech 2013, November 5 to 8, Amsterdam RAI, Hall 6, Stand 06.103

# Ion exchange resins and reverse osmosis membrane elements for the highest requirements

75 years as a provider of premium products for water treatment

Cologne – Specialty chemicals company LANXESS is showcasing high-performance ion exchange resins from its successful Lewatit range together with reverse osmosis membrane elements from the Lewabrane range at Aquatech 2013, taking place in Amsterdam, the Netherlands, from November 5 to 8. These premium products come together with a comprehensive service portfolio including the LewaPlus design software. Jean-Marc Vesselle, head of the Liquid Purification Technologies (LPT) business unit, says: "As one of the world's leading suppliers of products and solutions for water treatment and cleaning, we help our customers use the world's dwindling water resources as efficiently as possible. Our products meet the highest German and international production and quality standards. At Aquatech, we aim to introduce our expertise as an experienced one-stop supplier to a large international audience."

#### **Experienced technology leader**

With its innovative solutions for cleaning and treating drinking water, wastewater and industrial process water, LANXESS is supplying a growth market worth billions with products for all aspects of water, one of today's megatrends. The Liquid Purification Technologies business unit has decades of experience in the field of water treatment. Ion exchange resins were manufactured worldwide in large-scale production for the first time ever 75 years ago in Bitterfeld-Wolfen, Germany.

"The subject of water is one of the central megatrends of our time. Worldwide, clean water is becoming ever more precious, because

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Page 1 of 1





consumption and the world's population are increasing constantly. LANXESS delivers innovative products and solutions to meet the challenges of an increasingly difficult water supply situation around the world," said Rainer van Roessel, member of the LANXESS AG Board of Management. "We are making targeted use of our knowhow to improve the quality of life for people the world over."

### Tiny beads for big solutions

Lewatit is one of the leading brands in the field of ion exchange resins. For numerous industries and applications, LANXESS offers new and established products from the Lewatit range that, in combination with Lewabrane reverse osmosis (RO) membrane elements, fulfill even the most demanding requirements.

Depending on the respective conditions, combining the two methods can be an effective option. While RO membrane technology is very cost-efficient for water with a high salt content, only ion exchange resins can purify water with low salt concentrations to the point where purely trace amounts remain. With both methods connected in series, water of the highest purity can be produced even from very poorquality water. Alexander Scheffler, Director Membrane Business at LPT, says: "Correctly designing treatment plants for this purpose and ensuring comprehensive consulting are of critical importance. Our service includes assistance with plant design, with regard not only to applications engineering, but also the economic and ecological aspects."

## State-of-the-art Lewabrane reverse osmosis membrane elements made in Germany – best in class

The Lewabrane RO membrane separation elements made at the Bitterfeld site have been developed by LANXESS from scratch especially for industrial water treatment and the treatment of drinking water. Ultra-modern processes from the German mechanical and plant engineering sector have been combined with the latest

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Page 2 of 2



polymerization developments to establish state-of-the-art production. The Lewabrane product range currently includes membrane types for the desalination of brackish and low-salinity waters. Main areas of application include the production of boiler feed water required in power stations, wastewater treatment and groundwater remediation and recharge. The technology is also used for demineralization and particle removal in microchip manufacture.

The following RO product types are currently available from LANXESS:

- HR (High Rejection) elements with high salt rejection for optimal permeate quality
- HF (High Flow) elements for optimal balance between flow rate and salt rejection
- FR (Fouling Resistant) elements with special feedspacer to prevent fouling
- LE (Low Energy) elements for saving energy using lowpressure operation and optimal salt rejection

The Lewabrane product range will be supplemented with additional elements for seawater desalination in mid-2014.

All Lewabrane membrane elements comply with the "NSF/ANSI Standard 61" for health-related implications of drinking water system components. The U.S. National Sanitation Foundation (NSF International) has certified that all membrane elements currently offered by LANXESS are safe for use in the treatment of drinking water, which is a market with strong potential for growth.

## Unique planning software for integrated water system design

The comprehensive LewaPlus software supports the combined simulation and design of both reverse osmosis (RO) and ion exchange (IEX) processes for water desalination. This unique planning tool makes it possible to design very complex water treatment systems and draw direct comparisons between

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Page 3 of 3



calculations for RO and IEX processes. The latest version 1.5 offers a series of new features, such as the configuration of seawater desalination plants. Detailed information is available online at <a href="https://www.lewabrane.com">www.lewabrane.com</a>. The LewaPlus design software can also be downloaded from this website free of charge.

The Liquid Purification Technologies business unit is part of LANXESS' Performance Chemicals segment, which recorded sales of EUR 2.2 billion in fiscal 2012.

LANXESS is a leading specialty chemicals company with sales of EUR 9.1 billion in 2012 and roughly 17,500 employees in 31 countries. The company is currently represented at 52 production sites worldwide. The core business of LANXESS is the development, manufacturing and marketing of plastics, rubber, intermediates and specialty chemicals. LANXESS is a member of the leading sustainability indices Dow Jones Sustainability Index (DJSI) World and FTSE4Good as well as the Carbon Disclosure Leadership Index (CDLI).

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#### Forward-Looking Statements.

This news release may contain forward-looking statements based on current assumptions and forecasts made by LANXESS AG management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

#### Information for editors:

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Page 4 of 4