Perform with PerforMem

- Brand-new software from LANXESS for analyzing reverse osmosis
- Helps to localize interference factors in water treatment
 more easily
- Normalized system data and laboratory data can be displayed in one tool

Cologne – The specialty chemicals company LANXESS has developed a new normalization software for analyzing reverse osmosis. PerforMem automatically imports system data from templates in standard process control systems and quickly normalizes even large volumes of data.

"In addition to system data, laboratory measurements can also be entered and displayed alongside each other. To the best of our knowledge, no other normalization software offers this level of flexibility," says Dr. Jens Lipnizki, head of Technical Marketing Membranes in the Liquid Purification Technologies business unit at LANXESS. "Programs like these are often Excel-based and thus cannot conveniently manage and analyze large volumes of data," says the membrane expert.

PerforMem also provides a much more detailed graphical representation of process data and normalized values. Normalized values can then be converted to various formats for further processing or analysis if necessary.

The easier way to localize interference factors

Whenever membrane processes suffer from falling retention or reduced performance, this could be due to changes in the water quality or temperature, or deposits in the reverse osmosis system. To allow interference factors to be localized more easily, plant operators should continuously document a range of basic parameters such as

LANXESS AG

Contact: Ilona Kawan Corporate Communications Spokesperson Trade & Technical Press 50569 Cologne Germany

Phone +49 221 8885-1684 ilona.kawan@lanxess.com

Page 1 of 4



LANXESS Energizing Chemistry

temperature, flow, pressure, yield, and conductivity. It can also be helpful to measure the pressure drop, ideally between the concentrate stages.

This data should be normalized – in other words, set in relation to a standard condition. This allows operators to see whether the impaired performance can be attributed to the reverse osmosis system or altered feed parameters.

Digitalization of plant data is one of the focal points and challenges in today's water management sector. This involves digitalization of not only large-scale plants, but also medium- and small-scale plants. The collection of plant data in a cloud in combination with remote maintenance makes economic sense no matter what size the plant. The data can be used for process optimization and troubleshooting – provided that it can also be analyzed. "This is frequently a weak point because, in practice – meaning, when the water treatment plant is in operation – huge volumes of data are recorded very quickly, but are rarely subject to any kind of analysis," says Lipnizki.

Easy analysis of reverse osmosis with new LANXESS software

The new PerforMem software quickly and accurately calculates current plant and laboratory data in relation to a reference point. This makes it easy to establish whether performance is impaired due to changed feed composition or fouling. If fouling, such as salt deposits, is the problem, countermeasures can be quickly implemented so that the plant can continue to run for as long as possible under optimum conditions.

You can find detailed information about LANXESS products and services for the water treatment industry on the website at <u>lpt.lanxess.com</u>.

LANXESS is a leading specialty chemicals company with sales of EUR 6.8 billion in 2019. The company currently has about 14,300 employees in 33 countries. The core

LANXESS AG

Contact: Ilona Kawan Corporate Communications Spokesperson Trade & Technical Press 50569 Cologne Germany

Phone +49 221 8885-1684 ilona.kawan@lanxess.com

Page 2 of 4

LANXESS Energizing Chemistry

business of LANXESS is the development, manufacturing and marketing of chemical intermediates, additives, specialty chemicals and plastics. LANXESS is listed in the leading sustainability indices Dow Jones Sustainability Index (DJSI World and Europe) and FTSE4Good.

Cologne, March 25, 2020 kaw (2020-00026e)

Forward-Looking Statements

This company release contains certain forward-looking statements, including assumptions, opinions, expectations and views of the company or cited from third party sources. Various known and unknown risks, uncertainties and other factors could cause the actual results, financial position, development or performance of LANXESS AG to differ materially from the estimations expressed or implied herein. LANXESS AG does not guarantee that the assumptions underlying such forward-looking statements are free from errors nor does it accept any responsibility for the future accuracy of the opinions expressed in this presentation or the actual occurrence of the forecast developments. No representation or warranty (expressed or implied) is made as to, and no reliance should be placed on, any information, estimates, targets and opinions, contained herein, and no liability whatsoever is accepted as to any errors, omissions or misstatements contained herein, and accordingly, no representative of LANXESS AG or any of its affiliated companies or any of such person's officers, directors or employees accept any liability whatsoever arising directly or indirectly from the use of this document.

Information for editors:

All LANXESS news releases and their accompanying photos can be found at <u>http://press.lanxess.com</u>. Recent photos of the Board of Management and other LANXESS image material are available at <u>http://photos.lanxess.com</u>.

You can find further information concerning LANXESS chemistry in our WebMagazine at <u>http://webmagazine.lanxess.com</u>.

Follow us on Twitter, Facebook, Linkedin and YouTube: http://www.twitter.com/LANXESS http://www.facebook.com/LANXESS http://www.linkedin.com/company/lanxess http://www.youtube.com/lanxess

LANXESS AG

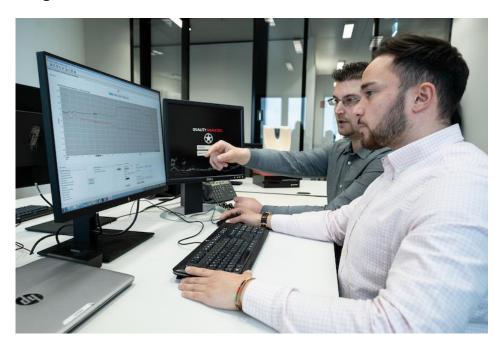
Contact: Ilona Kawan Corporate Communications Spokesperson Trade & Technical Press 50569 Cologne Germany

Phone +49 221 8885-1684 ilona.kawan@lanxess.com

Page 3 of 4



Image



LANXESS AG

Contact: Ilona Kawan Corporate Communications Spokesperson Trade & Technical Press 50569 Cologne Germany

Phone +49 221 8885-1684 ilona.kawan@lanxess.com

Page 4 of 4

David Langhals, system manager in the Liquid Purification Technologies business unit at LANXESS, demonstrates functions of the new PerforMem normalization software to his colleague Giuliano Cannavó (right). This program, developed by LANXESS, can be used to evaluate the performance of a reverse osmosis system and quickly identify faults. Photo: LANXESS AG