# AGC

## News Release

## AGC launches the new brand "FORBLUE™", serving the expanding needs for chemical separation

#### -Introducing "FORBLUE™ S-series"-

Tokyo, November 6, 2017 - AGC Asahi Glass (AGC), a world-leading manufacturer of glass, chemicals, and functional materials, announced today that it has launched the new functional brand "FORBLUE<sup>TM</sup>", a brand for providing AGC's eco-friendly technology for separating chemical substances. As a first step, AGC started sales of new fluorinated sulfonic acid ion exchange membranes "FORBLUE<sup>TM</sup> S-series" on November 6, 2017. S-series consists of several membrane grades possessing a wide range of ion exchange capacity and cation selectivity, enabling them to be used in a variety of electrolysis and electrodialysis applications for the purpose of separating chemicals. With the "FORBLUETM" brand, AGC will provide unique solutions to worldwide customers for their growing need for separating various chemicals.

AGC has been serving the market as a leading functional membrane manufacturer with its long standing products such as FLEMION<sup>TM</sup> (fluorinated ion exchange membrane for producing caustic soda/caustic potash), SELEMION<sup>TM</sup> (hydrocarbon-based ion exchange membrane for salt production, acid recovery, desalination, etc.) and sunsep<sup>TM</sup> (hollow fiber based membrane module unit) together with its group company AGC Engineering Co., Ltd.

Needs for separation technologies are increasing worldwide. Applications such as water electrolysis and storage batteries for instance, are growing along with the trend for utilization of renewable energy and hydrogen. In order to contribute to this current trend, AGC will strategically integrate existing functional membrane products and also launch the new brand "FORBLUE<sup>TM</sup>". The new brand will be positioned as a family brand for all these existing brands as well. With the launch of the new brand, AGC will expand its product line-up and also integrate R&D resources, sales organization and marketing activities of AGC and AGC Engineering Co., Ltd.

As of today, AGC will commence sales of fluorinated sulfonic acid ion exchange membranes "S-series," first of new series from "FORBLUETM" brand. As compared with conventional products in the market, this new product possesses a wider range of ion exchange capacity and cation selectivity, making it possible for customers to select suitable membranes according to their applications. S-series also incorporate a special reinforced fabric to enhance ease of handling, dimensional stability and mechanical strength of the membranes. Due to these characteristics they can be used for a wide range of electrolysis and electrodialysis applications for a variety of chemicals with high efficiency and stable operation. (For more information please refer to our website link)

http://www.agc-chemicals.com/jp/en/fluorine/products/detail/index.html?pCode=JP-EN-F027

By utilizing its technologies and knowhow acquired through a long history of experience in the functional membrane market, the AGC Group will commit itself to continue providing functional solutions to meet the expanding needs for chemical separation, under the new brand "FORBLUETM".

Kazumi Tamaki, General Manager, Corporate Communications & Investor Relations Office

AGC Asahi Glass

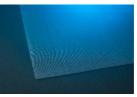
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## **News Release**

#### **■ FORBLUE**<sup>TM</sup> Family Line-up

## **FORBLUE™** Family



FORBLUE™	<b>FLEMION</b> <sup>TM</sup>	<b>SELEMION</b> <sup>TM</sup>	sunsep™
S-series			
Various electrolysis	Production of caustic soda /	Producing of salt	Dehumidification and
and electrodialysis	caustic potash	Recovering acid	humidification of
applications		Desalination	various gases
		Concentration	

\*SELEMION<sup>™</sup> and sunsep<sup>™</sup> are products of AGC Engineering Co., Ltd.

#### **■FORBLUE**<sup>TM</sup> Family website

http://www.agc-chemicals.com/jp/en/fluorine/products/forblue/

•FORBLUE<sup>TM</sup> S-series

http://www.agc-chemicals.com/jp/en/fluorine/products/detail/index.html?pCode=JP-EN-F027

 $\boldsymbol{\cdot} FLEMION^{TM}$ 

http://www.agc-chemicals.com/jp/en/fluorine/products/detail/index.html?pCode=JP-EN-F020

- •SELEMION<sup>TM</sup> <a href="http://www.agec.co.jp/selemion/index\_en.htm">http://www.agec.co.jp/selemion/index\_en.htm</a>
- sunsep<sup>TM</sup> <u>http://www.agec.co.jp/e/en\_index.htm</u>

#### ■ Characteristics of FORBLUE<sup>TM</sup> S-series

- •Fluorinated ion exchange membrane based on sulfonic acid polymers
- Possesses a wide range of ion exchange capacity

  (from similar range to +37 % compared to conventional products, depending on the grade)
- All components consisting of fluoropolymers High durability to all kinds of chemicals
- •Special reinforced PTFE fabric incorporated high mechanical strength and ease of handling
- •3 different types of ion exchange membrane customers can select them according to their applications

<Media inquiries>

Kazumi Tamaki, General Manager, Corporate Communications & Investor Relations Office AGC Asahi Glass

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