



## Market Report

# Global Membrane Technology Market

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## Abstract

Membrane technologies experienced significant development in the last decades. The market continues to show strong growth worldwide driven by ever stricter environmental regulations, advancement of material science and process technologies, challenges related to water supply and sanitation, exploration of new applications, rapidly increasing demand in developing regions, etc.

Global demand on membrane modules in water treatment and industrial uses combined was valued at approximately US\$18.4 billion in 2014. Growing by 6.0% annually in the coming years, the market is expected to reach US\$23.23 billion by 2018 and to approach US\$26.10 billion by 2020.

Chemical processing and water treatment present the largest application markets of membrane technologies. North America and Western Europe remain the key leaders for membrane systems and filtration technologies. With unique properties, distinct performance characteristics, and technology innovations and developments, the market presents promising prospect and huge potential.

Acmite Market Intelligence has finished a most comprehensive report on the global membrane technology market. It is ready for order.

The report examines the current products, technologies and application areas, provides extensive market data of 2014, and market forecast through 2018 to 2023. It also outlines the competition landscape, evaluates market chances and risks and anticipates future trends and chances based on a series of influence factors.

- 233 pages analyzing the market
- 70 data tables
- 266 manufacturers of membrane products profiled

With a multi-dimensional and in-depth view of the global technology membrane market, this report is ideal help for you with decisions about market penetration, business expansion or project feasibility analysis.

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## **Volume II**

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### **Note:**

Regions:

North America: US, Canada, Mexico (NAFTA region)

Asia Pacific: Countries of Asia, Australia, New Zealand

Asia Pacific\*: Asia Pacific excluding Japan and China

Market: excl. medical membrane market

## 4.2 Inorganic membrane

### 4.2.1 Products and uses

Synthetic membrane can be produced from inorganic materials. Typical inorganic membrane media include ceramics such as various oxides (alumina, silica, titania, zirconia), zeolites, and metals such as stainless steel, palladium, silver and their alloys.

Inorganic membranes can be classified into two major categories based on their structure:

- Porous inorganic membranes. Microporous inorganic membranes have two different structures: symmetric and asymmetric; and include both amorphous and crystalline membranes. The current commercial inorganic membrane market is dominated by porous membranes.
- Dense (non-porous) inorganic membranes. Application of dense inorganic membranes is primarily for highly selective separation of gases such as hydrogen and oxygen. However, dense membranes have limited industrial application due to their low permeability compared to porous inorganic membranes.

### Ceramic membranes

Ceramic membranes are produced from inorganic materials such as aluminium oxides, titanium oxides, silicon carbide, zirconium oxide or some glassy materials. Ceramic membranes are very resistant to the action of aggressive media such as acids and strong solvents. They are very stable chemically, thermally, and mechanically, and biologically inert. Even though ceramic membranes have a high weight and substantial production costs, they are ecologically friendly and have long working life. Ceramic membranes are generally made as monolithic shapes of tubular capillaries

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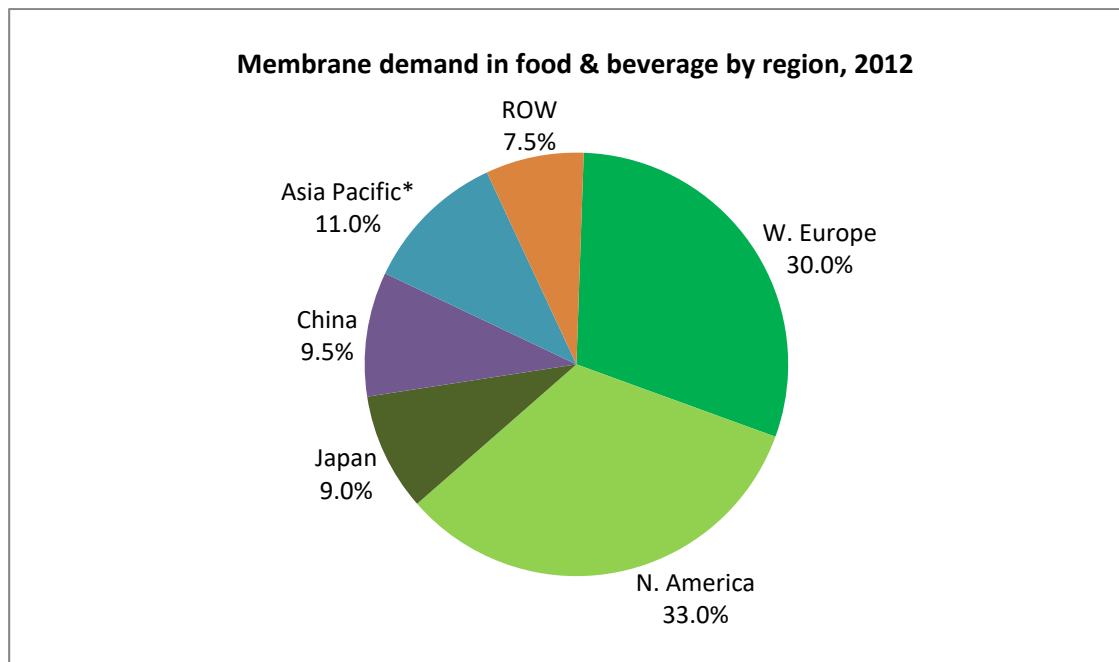
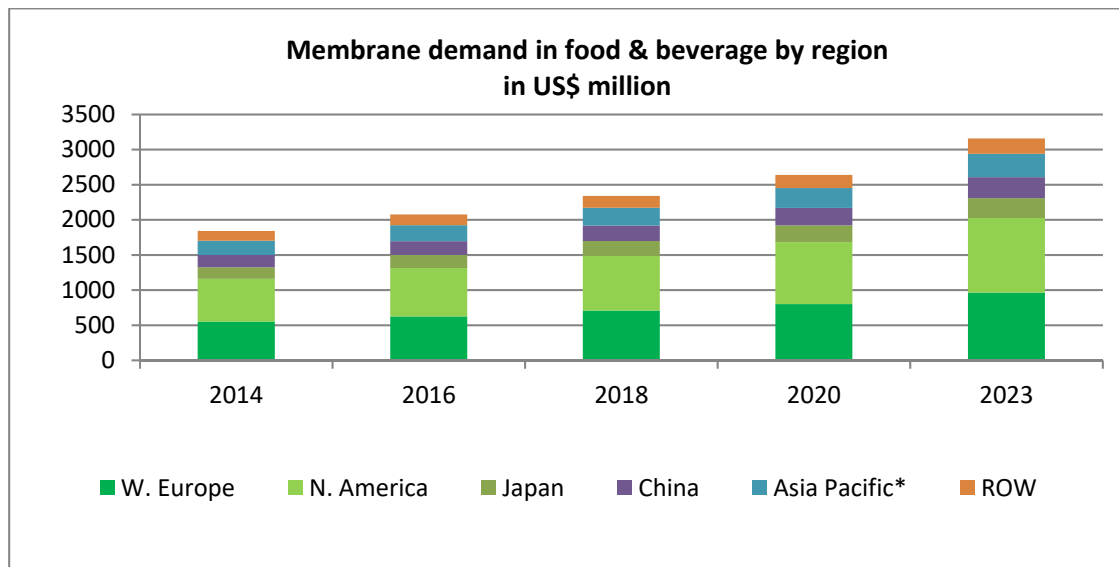
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### 7.4.2.3 Membrane module demand in food & beverage by region

Membrane module demand in food & beverage by region in US\$ million

|               | 2014 | 2016 | 2018 | 2020 | 2023 | CAGR |
|---------------|------|------|------|------|------|------|
| W. Europe     | 552  | 625  | 708  | 801  | 964  | 6.4% |
| N. America    | 607  | 688  | 778  | 881  | 1061 | 6.4% |
| Japan         | 166  | 187  | 211  | 238  | 284  | 6.2% |
| China         | 175  | 197  | 222  | 249  | 298  | 6.1% |
| Asia Pacific* | 202  | 226  | 253  | 282  | 333  | 5.7% |
| ROW           | 138  | 153  | 169  | 187  | 218  | 5.2% |
| Total         | 1840 | 2075 | 2340 | 2639 | 3157 | 6.2% |



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### **Meidensha Corp. (Japan)**

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Japan  
Phone: +81-3-6420-7510  
Fax: +81-3-5745-3053  
<http://www.meidensha.co.jp>

Year of foundation: 1897

Number of employees: 8,173

Revenue: JPY 230,299 million

### **Company profile**

Meidensha Corp. is mainly engaged in development, manufacture and sales of power generators and water treatment systems.

Its products and service offerings include:

- social infrastructure systems, including power, electric railways, plants and buildings, water treatment, PV solutions and vacuum interrupters
- industrial systems, including computers and components, motor drives, automotive test systems and logistics support
- engineering systems, including maintenance services
- real estate

Its Water Treatment business offers integrated supervisory control systems, electrical system for water treatment plant, water purification systems, water quality meters and ceramic membranes.

The company provides following membrane products: ... ..

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