CRM2519 Microfiltration

® Ceramic Membranes

PRODUCT DESCRIPTION

Model: CRM3019
Serial number: 282031
Raw Material: α-Alumina/Zirconia
Pore size: 500nm
Construction: Multi-channel tubular element
Applications: Clarification, Purification, Liquid-Solid Separation

MEMBRANE AREA

Area 0.25 m²

OPERATING & DESIGN INFORMATION

Typical Operating Pressure: 29-145 psi (2-10 bar)
Maximum Operating Temperature: 302°F (150°C)
Maximum Cleaning Temperature: 176°F (80°C)
Allowable pH - Continuous operation: 1-14
Allowable pH - Clean-In-Place (CIP): 0-14
Solvent stability: Unaffected due to different seals

FLUX DATA

Pure water flux: 1200 L.m².h.bar
Element water flux: 300LPH
Test Conditions: 14 psi (1bar), 86°F (25°C), pure water

PRODUCT DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Channel Qty</th>
<th>Gross Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM2519</td>
<td>1178mm</td>
<td>25mm</td>
<td>3.5mm</td>
<td>19</td>
<td>1.25kg</td>
</tr>
</tbody>
</table>

Note: Length could be customized from 500mm to 1200mm
## ® Ceramic Membranes

### Membrane Characteristics:
* Narrow pore size distribution
* Excellent abrasive resistance
* Acid & Caustic stability
* Oxidation stability
* Solvent stability
* High thermal stability
* Long service life
* Customized membrane configurations

### Operating Limits:
**Operating Pressure:** Maximum operating pressure for 
® MF membranes is 145 psi (10 bar). Actual operating pressure is dependent upon system flux rate, as well as feed viscosity, and temperature conditions.

**Temperature:**
Maximum operating temperature is 302°F (150°C). Temperature shock $\Delta T$ should not exceed 10°C per minute.

**pH:** Allowable range for continuous operation is 1-14.

**Prefilter for membranes:** Screen filter of 30 mesh or paper filter to remove hard particles

### Membrane Handling:
**Recommended cleaners:**
Depending on the nature of the feed material, a choice can be made from the following cleaning agents:
- Acid Cleaner: 1~3% HNO₃, 1%H₃PO₄, Oxalic acid, 112°F (50°C)
- Caustic Cleaner: 1~3% NaOH, Na₃PO₄, NaClO, 112°F (50°C)
- Chelate Reagent: EDTA
- Surfactant: SDS
- Enzyme Reagent: Amylase, Protease
Consult TFT for more information on cleaning to ceramic membranes.

**Lubricants:** For element installation, use only water or glycerin to lubricate seals. The use of petroleum or vegetable-based oils or solvents may cause fouling on membrane.

**Wet Preservation:** Should be made with:
- Short Term (up to one week): clean water
- Long Term: 1% w/w sodium sulphite or 1% w/w H₂O₂

**Dry Storage:** Membranes should be first cleaned by chemicals and stored in box or in a firm vessel in case of bump.

### Service and Ongoing Technical Support

Tangent Fluid Technology (TFT) is a professional manufacturer for ceramic membranes in China. TFT have a comprehensive product development program and facility to ensure the availability of state-of-the-art products. TFT has an experienced staff of professionals available to assist you to optimize existing systems and support with the development of new applications. TFT will provide knowledgeable assistance whether it is staff training, review of system operations, or recommendations for fine tuning your system.

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