CMF-19040-1200mm Ultrafiltration
Ceramfil® INORGANIC CERAMIC MEMBRANE

PRODUCT DESCRIPTION

Model: CMF19040-OD30
Serial number: 92020
Raw Material: α-Alumina/Zirconia
Pore size: 20nm
Construction: Multi-channel tubular element
Major Applications: Clarification, Liquid-solid separation, Wastewater treatment

MEMBRANE AREA

Area: 0.29 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: 0-14
Allowable pH - Clean-In-Place (CIP): 0-14
Solvent stability: Unaffected due to different seals

FLUX DATA

Pure water flux: 300 l/m².h.bar
Element water flux: 87 LPH
Test Conditions: 14 psi (1bar), 86°F (25°C), pure water

PRODUCT DIMENSIONS

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Gross Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD30-19040-1200mm</td>
<td>1200mm</td>
<td>30mm</td>
<td>19</td>
<td>1.70kg</td>
</tr>
<tr>
<td></td>
<td>1200mm</td>
<td>30mm</td>
<td>4.0mm</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Channel Qty</td>
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Ceramfil® INORGANIC CERAMIC MEMBRANE

Membrane Characteristics:
Ceramfil® ceramic membrane in a tubular multi-channel configuration, with superior acid & alkaline and solvent stability.

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

Maximum back Pressure: 87 psi (6.0 bars).
Temperature: Maximum operating temperature is 302°F (150°C). Temperature change should not exceed 10°C per minute.
PH: Allowable range for continuous operation is 1-14.

Prefilter for membrane: Screen filter of 30 mesh or paper filter

Feed Flow Rate: To acquire a lowest fouling on membrane layer and prevent the channel blocked, a minimum cross flow recirculation velocity is necessary due to liquid of different viscosity:

<table>
<thead>
<tr>
<th>OD30-19040</th>
<th>min (m³/h)</th>
<th>max (m³/h)</th>
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<tbody>
<tr>
<td></td>
<td>3.8</td>
<td>6.5</td>
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</tbody>
</table>

Actual feed flow rate is dependent feed characteristics (Viscosity, TS, and Temperature etc), fouling tendency, concentrate parameter and system design. For more details about this please consult with JIUWU for technical support.

Membrane Handling:
Recommended cleaners for recovering membrane: 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)
Alkaline Cleaner: 1~3%NaOH, Na₃PO₄, NaClO, 112°F (50°C)
Chelate Reagent: EDTA
Surfactant: SDS
Enzyme Reagent: Amylase, Protease

Consult JIUWU for more information on cleaning to Ceramic membrane.

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.

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
Storage: The membrane should be stored after cleaning.

Service and Ongoing Technical Support
JIUWU HITECH has an experienced staff of professionals available to assist you to optimize existing systems and support with the development of new applications. We have a comprehensive product development program to ensure the availability of state-of-the-art products. JIUWU will provide knowledgeable assistance whether it is staff training, review of system operations, or recommendations for fine tuning your system.

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JIANGSU JIUWU HITECH CO., LTD
Address: No.9 Huqiao East road, Jiangpu sub-district, Pukou district, Nanjing city, Jiangsu 211808 China
Tel: 0086 25 58109595 Fax: 0086 25 58209595
Http:// www.jiuwu.com Email: claireding@jiuwu.com