Technical Data Sheet

Material Number: 551642S / 551652U
Material description: Anion exchange membranes / Cation exchange membranes

PRECAUTIONS FOR USE OF THE ION EXCHANGE MEMBRANES

GENERAL HANDLING INTRODUCTION

1. Be careful if you handle the membrane.
   The ion exchange membrane is very thin（100~500μm) and delicate.
   It is very easy to be damaged by edged tools such as knives or pointed tools.

2. Do not bend or fold the membrane at a sharp angle. It may cause crack or damage of the membrane.

3. Do not dry the membrane.
   When you handle or assemble the membrane, please sprinkle pure water over the membrane surface sometimes then cover with plastic sheets. Do not leave the membrane in atmosphere for a long time.

4. Sometimes, color unevenness, color change or mold may appear on the membrane surface, but it does not affect the quality and efficiency of the product.

STORAGE INTRODUCTION

To store the membrane, please follow these basic rules:

1. Do not dry the membrane. Keep it wet.
2. Do not put anything on the membrane.
3. Do not bend or fold the membrane.

- The original package is just for transport use and not suitable for keeping for a long time.
- If you keep the sealed membrane more than a month, please check its state regularly to avoid drying.
- It is recommended to soak the sealed package in pure water.
- To store the unsealed membrane, pack it in a closed container with pure water or 3~5[%] salt water, then store it in a cool dark place.

- Do not use tap water to wet the membrane directly. Effective chlorine (sodium hypochlorite) in tap water may damage the membrane.
- Storage temperature is 5~40 °C（32~104°F), especially 2°C~30 °C(68°F~86°F) is recommended
- Do not Freeze, heat or store in a hot place the membrane for a long time. It may cause damage or degradation of the membrane

OPERATING INTRODUCTION

1. Depending on a solution composition, the operation temperature is 5~40 °C（32~104°F), especially 20 °C~30 °C (68°F~86°F) is recommended. Please cool the solution if its temperature is over 40 °C (104°F）.

2. The recommended operating pH value is below 7. Alkaline may degrade the membrane.
   If the pH value is over 7, it may cause to shorten the membrane life.

3. Hypochlorous acid (HClO), peroxide and oxidant will degrade the membrane even if the amount is small (several ppm). Please use reductants.

4. Oiliness, SS（Suspended Solids), surfactant and organic matters may cause to decrease efficiency of the membrane.
   Please reject these substances from the solution in a preprocess sufficiently.

5. For normal operation, applying same pressure value on both side of the membrane is recommended.
   Do not make too much pressure difference on both side of the membrane.
   It may cause damage of the membrane or blocking up the inside flow of desalination and concentration rooms.

6. In case of using the membrane for ED (electrodialysis) process, please measure the LCD (Limiting Current Density) at first.
   Then please keep the operating current value below the LCD basically.
   (The operating current value depends on the solution composition and the flow velocity)