

## AMS Flat Sheet Membrane Guidelines

Hello! We are thrilled to have you choose our membrane! Here at UNISOL, we put a lot of effort to make our products work perfectly for application like yours. To save your time and let you have the smoothest experience, we filtered hundreds of cases and produced these guidelines. If we fell short of addressing your question, drop us a line.

### HANDLING

Do NOT allow to FREEZE.

#### Handle with care

- Avoid scratching, bending, or tearing.
- Pay attention not to damage with rings or nails.

#### Inspect on arrival

- Package is intact.

#### Store properly

- Store in original package.
- Keep temperature within 4 ~ 30°C
- Humidity less than 60-70%
- Protect from direct sunlight

### OPERATIONS

Do NOT expose to OXIDANTS.

LIMIT SUSPENDED SOLIDS to 5 mg/L.

#### Precondition the membrane

- Soak in water for at least 8 hours, better overnight.

#### Mind during operations

- Check operating limits in the datasheet.
- Place shiny, glossy side facing the feed stream.
- Build up pressure gradually (over 1 minute).
- Limit recovery to 50% in dead-end mode.

#### Use relevant cleaning

- Do NOT backwash the membrane.
- Please flush the module by permeate after processing
- Refer to the datasheet for recommended cleaning chemicals.

#### Storage time

- 12 months

#### Check performance by diagnostic tests

- Measure water flux and compare result with datasheet (flux may vary  $\pm 20\%$ ).
- Measure  $MgSO_4$  rejection and compare result with datasheet (rejection may vary  $\pm 2\%$ ).
- Run tests on arrival to rule out transport damage and to establish the baseline performance.

#### For diagnostic tests use these conditions

- In dead-end mode, set stirring at 600 RPM.
- In cross-flow mode, set velocity 0.4 ~ 1.0 m/s.
- Set pressure at 40 bar.
- Keep temperature at 30°C.
- Reach 20% permeate volumetric recovery.
- Use 2 g/L  $MgSO_4$  aq. solution for rejection test

Water is demineralized water, or equivalent, having hardness below 17 mg/L, total dissolved solids below 500 ppm, ORP below 300 mV, no chlorine. If using tap water, double-check the absence of chlorine. Preservative solution is 1.5% aq. solution of food-grade sodium metabisulfite.