FO Flat Sheet Test Membrane

Cleaning suggestions

1. Clean water rinse:
All liquids are replaced by DI water and the circuits with the chamber and membrane are rinsed thoroughly. The rinsing is done at the same or slightly higher flow speed as in the original experiment. This will not remove extensive fouling but if applied after each experiment it will prolong the usability of the membrane without additional chemicals.

2. Chemical cleaning:
The alkaline membrane cleaning chemical Ultrasil 112 can be used to remove organic fouling. If any inorganic fouling is suspected, we suggest to introduce an acidic cleaning step with Ultrasil 78 before.

We recommended to use:
• 0.3% P3-Ultrasil 78 – 50 ºC – recirculate 30 minutes
• Flush with cold water
• 0.8% P3-Ultrasil 112 – 50 ºC – recirculate 30 minutes
• Flush with cold water

Osmotic backwash is reported in academic literature as a potential cleaning method for FO membranes, however this has not yet been proven effective by Aquaporin.