MICRODYN Modules Handling Instructions

Thank you for buying MICRODYN modules from MANN+HUMMEL Water & Fluid Solutions. Please note the following information before you use this product.

ACTIVATION BEFORE FILTRATION

The microporous membranes are made of hydrophobic polypropylene (PP). The simplest method is activation by pressure. Please read the manual first (https://www.microdyn-nadir.com/tubular-capillary-modules/). For filtration of liquids with high surface tension (e. g. water (72 mN/m)), a different activation step is necessary. For this the MICRODYN module must be filled with an aqueous mixture with minimum 50 vol. % isopropanol or 25 vol. % tert. Butanol, or surfactants. With this method it is necessary to run the module in a system for about 30 minutes in crossflow mode until a sufficiently high flux is reached. After wetting, the module is flushed either with water or with the solution to be filtered to rinse any remaining agents. For filtration with vigorously degassing liquids (mineral water, beer, etc.), the module must be kept at a pressure that prevents degassing of the liquid. Degassing inside the module can negatively influence the flux behavior.

Note: The module must be kept wet, otherwise the activation step must be repeated.

TEMPERATURE & OPERATING PRESSURE

The max operating temperature is 40 °C and 60 °C respectively, depending on the module type. Please consult the data sheet (https://www.microdyn-nadir.com/tubular-capillary-modules/) of the module type. The max operating pressure can also be found in the data sheets.

CLEANING

Even with periodic backwashing using permeate - depending on the product - an intensive cleaning with a cleaning agent may become necessary after periods of operation. Those cleaning agents can be non-oxidizing acids or bases with a pH-range of 0.5-14 (e. g. NaOH), citric acid, and others. Organic solvents that do not swell or destroy polypropylene are also permissible.
Oxidizing cleaning agents are not permitted (e.g. H2O2, sodium hypochlorite, ozone, etc.).

The membrane is affected by strong oxidizing acids (e. g. nitric acid or concentrated sulphuric acid), which can lead to an oxidizing decay.

Please note:

Not strictly adhering to these instructions may lead to reduced filter efficiency or a reduction in module life and therefore a voiding of the warranty. **Information given in this document is based on our current best knowledge. We reserve the right to make modifications due to new developments at any time without prior notification. The most up-to-date and valid documents can be found at** www.microdyn-nadir.com.

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