



DATA SHEET

ULTRAFILTRATION MEMBRANE: ITHY-VFU100

CHARACTERISTICS

- Permanent hydrophilic polyvinylidene fluoride membrane with 100 kDa Cut-Off
- High chemical resistance and mechanical stability under pressure
- Membrane coating "inside"; filtration direction from inside to outside
- Stable filtration flux and excellent antifouling characteristics
- Asymmetric membrane structure
- Support material in Polyester (PET)

APPLICATIONS

- Membrane bioreactors
- Wastewater treatment
- Emulsion treatment
- Clarification
- Concentration process
- Liquid from biogas-plants

PERFORMANCE DATA

| | | |
|---|-----------------------------|------------|
| Molecular weight cut off (Dextrane mixture) | kDa | 100 |
| Water flux (RO water at 25 °C and 100 kPa) | l/(m ² h100 kPa) | >300 |
| Temperature range (for membrane material) | °C | 1 - 70 |
| pH range (at max. 40°C) | | 2 - 10 |
| Chlorine exposure (at 25°C) | ppmh | < 250,000 |

SOLVENT RESISTANCE

Resistance of membranes against solvents is strongly dependent on the process conditions. The given classifications can therefore only serve as guidelines.

| | | | |
|---------------------------------|----|--|----|
| Acids, pH > 2 | + | Halogenated Hydrocarbons | ++ |
| Bases, pH < 11 | + | Aromatic Hydrocarbons | + |
| Organic esters, ketones, ethers | -- | Polar organic solvents | -- |
| Aliphatic Alcohols | ++ | Oils | ++ |
| Aliphatic hydrocarbons | ++ | ++ excellent resistance / -- no resistance | |

CLEANING

The conditions of a chemical cleaning procedure are dependent on the filtrated liquid and the kind of contamination. The following maximum concentrations and pH-ranges must be observed (more details available in the data sheet „Cleaning instructions“).

| | | | |
|---------------------|---------|-----------------|---------|
| Sodium hypochlorite | < 0.05% | Phosphoric acid | pH ≥ 1 |
| Hydrogen peroxide | < 0.1% | EDTA / NTA | pH ≤ 11 |
| Sodium hydroxide | pH ≤ 11 | Citric acid | - |
| Nitric acid | pH ≥ 1 | Enzymes | - |