

## PCI - WFR0950 Classic Reverse Osmosis Tubular Membrane

### Basic Characteristics

- General purpose cellulose acetate membrane
- Tubular membrane available in 14.4 mm
- Developed for use in a variety of reverse osmosis processes in industrial food and non-food applications
- Available in three standard qualities differing in salt rejection and flux
- Membrane material composed of cellulose diacetate
- Membrane carrier is a composite polyester non-woven

### Applications

- Recovery of process water from middlings in corn starch production
- Reduction/removal of COD/BOD from potato starch waste water or corn waste water
- Treatment of waste water with high COD and BOD load and heavy metal contamination
- Treatment of surplus water from domestic waste dumps (leach water)
- Direct treatment of surface water without any pretreatment
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### Cleaning

Depending on the nature of the feed solution the following cleaning agents can be chosen:

NaOCl (active chlorine)	H <sub>2</sub> O <sub>2</sub>	Phosphoric acid	Sodium tri-phosphate	Citric acid	Enzymatic compounds
50 ppm max.	400 ppm max.	pH ≥ 2		< 1%	

It is recommended to keep the pH between 2 and 8 and not to exceed a temperature of 35 °C during cleaning and/or disinfection. If those standard cleaning techniques fail to remove the foulants, more concentrated cleaning solutions can be tried. Please contact PCI Membranes for recommendations. It has to be stressed, however, that no warranty can be given on the efficiency of any cleaning nor on the membrane performance after such cleaning attempts.

### Storage

New membrane modules can be stored as supplied. Membrane modules should be stored in a dry, normally ventilated place, away from sources of heat, ignition and direct sunlight. Store between 0 and 40 °C. The membrane modules should not be subjected to any freezing temperatures. After use, RO membranes need to be stored wet at all times. In case of long-term storage, membranes should be cleaned before the disinfection step is carried out.

### Performance Data

Parameter	Unit	R0950	Remarks
Initial flux (0.35 w% NaCl)	l/m <sup>2</sup> .h	40 ± 5	0.35 w% NaCl at pH 6
Rejection (0.35 w% NaCl)	%	95 ± 1	25 °C and 4 MPa
Transmembrane pressure	kPa	-20 .. + 4000	
pH		3 - 7	at 25 °C
Chlorine exposure	ppm	0.5	at 25 °C
Temperature	°C	1 - 40	

Operation of membranes at any combination of maximum limits of pH, concentration, pressure or temperature, during cleaning or production, will severely influence the membrane lifetime.

### Solvent Resistance

Since the resistance of the membrane to solvents strongly depends on the actual process conditions, the indications given below should only be considered as guidelines.

- Acids -
- Bases -
- Organic esters, ketones, ethers --
- Aliphatic alcohols +
- Aliphatic hydrocarbons +
- Halogenated hydrocarbons --
- Aromatic hydrocarbons --
- Polar organic solvents +/-
- Oils +