

Performance Data Sheet

Puronics® Reverse Osmosis Water Filtration System
Model: Micromax™ 7000
with Filter Cartridge W-PN-1001 and Membrane Cartridge W-PN-1002

This filtration system has been tested and certified according to NSF/ANSI Standard 42 & 58 by WQA for the reduction of substances listed below, as verified and substantiated by test data. The concentration of the indicated substances in the water entering the system was reduced to a concentration less than or equal to the permissible limit for leaving the system, as specified in NSF/ANSI Standards 42 & 58. Please see warranty insert for manufacturer's limited warranty. Please see installation instructions for internal operation and maintenance requirements.

Efficiency Rate: 19.0%⁴ Recovery Rate: 30.6%⁵ Daily Production Rate: 35 Gallons per Day
 Operating Temperature: Min 40°F / 4°C - Max 100°F / 38°C Operating Pressure: 40-100 psi (276-690 kPa)
 Laboratory Test Conditions: pH: 6.5 - 8.5 Water Temperature: 72°F / 23°C - 75°F / 24°C

Actual performance may vary with local water conditions.

Do not use with water that is microbiologically unsafe or of unknown water quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.

NSF/ANSI Standard 42 Aesthetic Effects

Substance	Influent Challenge Concentration (mg./liter unless specified)	US EPA Maximum Permissible Water Concentration/ % Reduction	Actual Minimum Percent Reduction	Actual Average Percent Reduction
Taste & Odor, Aesthetic Chlorine	2 mg	1 mg 50%	94.8%	97.4%
Particulate Class III (5 um to < 15 um)	> 10,000 particles per ml	1,500 particles per ml 85%	98.0%	99.7%

NSF/ANSI Standard 58 Health Effects

Arsenic (Pentavalent) ¹	0.05 +/- 10%	0.01 mg 80.0%	89.7%	95.4%
Cadmium	0.03 +/- 10%	0.0005 mg 83.3%	96.1%	99.1%
Chromium (Trivalent)	0.30 +/- 10%	0.05 mg 99.8%	99.8%	99.9%
Chromium (Hexavalent)	0.30 +/- 10%	0.05 mg 83.3%	81.0%	98.9%
Lead	0.15 +/- 10%	0.010 mg 93.3%	98.7%	99.6%
Nitrate plus Nitrite ²	30.0 +/- 10%	10.0 mg 63.3%	63.3%	63.3%
Selenium	0.10 +/- 10%	0.05 mg 99.0%	99.0%	99.0%
Total Dissolved Solids	750 +/- 40	187 75.0%	96.6%	97.5%
Reduction Requirements:				
Cysts	Minimum 50,000	2,500 oocysts/liter 99.95%	99.95%	99.95%

¹ This system has been tested for the treatment of water containing pentavalent arsenic (also known as As(V), As(+5) or arsenate) at concentrations of 0.050 mg/L or less. This system reduces pentavalent arsenic, but may not remove other forms of arsenic. This system is to be used on water supplies containing a detectable free chlorine residual at the system inlet or on water supplies that have been demonstrated to contain only pentavalent arsenic. Treatment with chloramines (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic. Please see Arsenic Fact Sheet for further information.

² This system is acceptable for treatment of influent concentrations of no more than 27 mg/L nitrate and 3 mg/L nitrite in combination measured as N and is certified for nitrate/nitrite reduction only for water supplies with a pressure of 280 kPa (40 psig) or greater.

³ Units are not certified on water supplies with pressure less than 40 psi (280kPa). A booster pump is strongly recommended.

⁴ Efficiency rating means the percentage of the influent water to the system that is available to the user as reverse osmosis treated water under operating conditions that approximate typical daily usage.

⁵ Recovery rate means the percentage of the influent water to the membrane portion of the system that is available to the user as reverse osmosis treated water when the system is operated without a storage tank or when the storage tank is bypassed.

Arsenic Fact Sheet

Arsenic (As) is a naturally occurring contaminant found in many ground waters. It generally occurs in two forms (valences or oxidation states): pentavalent arsenic (also known as As(V), As(+5), or arsenate) and trivalent arsenic (also known as As(III), As (+3), or arsenite.) In natural ground water, arsenic may exist as trivalent arsenic, pentavalent arsenic, or a combination of both. Although both forms of arsenic are potentially harmful to human health, trivalent arsenic is considered more harmful than pentavalent arsenic. More information about arsenic and its toxicity can be found on the U.S. Environmental Protection Agency website at <http://www.epa.gov/safewater/arsenic.html>.

Trivalent arsenic is generally more difficult to remove from drinking water than pentavalent arsenic. Trivalent arsenic can be converted to pentavalent arsenic in the presence of an effective oxidant such as free chlorine.

The arsenic in water containing detectable free chlorine or that has been treated with another effective oxidant will be in the pentavalent arsenic form. Treatment with chloramine (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic.

Consumers using public water supplies can contact their utility to verify whether free chlorine treatment chemicals are being used. Private water supplies and waters that do not have detectable free chlorine residuals should be analyzed to determine the form(s) of arsenic present and the potential need for oxidation of trivalent arsenic to pentavalent arsenic.

Arsenic does not generally impart color, taste, or smell to water, therefore, it can only be detected by a chemical analytical test. Public water supplies are required to monitor treated water for total arsenic (trivalent arsenic plus pentavalent arsenic) and the results are available to the public from the utility. Consumers using private water sources will need to make arrangements for testing. A total arsenic test usually costs about \$15-\$30 and it is recommended a certified laboratory conduct test. Local health departments or environmental protection agencies can help provide consumers with a list of certified laboratories. Some laboratories may also be able to analyze specifically for (speciate) the forms of arsenic present in a water sample if requested and ordering information.

Water treatment systems are tested under laboratory conditions and found to reduce either 0.30 mg/L or 0.050 mg/L (refer to the product listing for influent tested levels) in the test water to less than 0/0.010 mg/L, under standard testing conditions. Actual performance of the system may vary depending on specific water quality conditions at the consumer's installation. Following installation of this system, the consumer should have the treated water tested for total arsenic to verify arsenic reduction is being achieved and the system is functioning properly.

The pentavalent arsenic removal component of this system must be replaced at the end of its' useful life. Replacement component(s) can be purchased from the original source of this system (retailer or distributor), from other sources of this treatment system, or directly from the manufacturer. Refer to the installation and operation manual of your water treatment device to obtain replacement frequency and ordering information.