

Water Filtration System Performance Data Sheet



Brand: Lyon II

Model: CP-07BLO

This system has been tested and certified by the Water Quality Association according to NSF/ANSI 42, 53, and 58 for the reduction of the substances listed below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 42, 53, and 58.

Substance	Max. Allowable Concentration (mg/L)	Average Influent (mg/L)	Average Effluent (mg/L)	Minimum Percent Reduction (%)	Average Percent Reduction (%)
Arsenic (Pentavalent)	0.010	0.05	0.006	79.1	87.7
Barium	2.0	10	1.4	83.5	86.6
Radium 226/228	5pCi/L	25pCi/L	5pCi/L	N/A	N/A
Cadmium	0.005	0.031	0.002	89.0	92.7
Chromium (Hexavalent)	0.1	0.358	0.023	93.8	95.1
Chromium (Trivalent)	0.1	0.367	0.028	93.8	95.7
Lead	0.010	0.153	0.005	93.6	95.1
Nitrate/Nitrite	10	29.6	4.8	78.5	83.7
Selenium	0.05	0.117	0.003	96.0	97.8
TDS	<187.5	737.6	51.6	89.9	93.0
Aesthetic Chlorine	≥ 50%	2.07	0.56	54.53	72.8
VOC*	≥ 95% reduction	0.32	0.0077	95.70	97.6

While testing was performed under laboratory conditions, actual performance may vary.

General Operating Information:

Rated Capacity	165 gallons (for VOC) 4,400 gallons (for Aesthetic Chlorine)
Min-Max operating pressure:	20 ~ 120 psi (1.4 ~ 8.4 kgf/cm ²)
Min-Max feed water temperature:	41 ~ 95 °F (5 ~ 35 °C)
Rated Service Flow	0.07 GPM (for VOC) 0.5 GPM (for Aesthetic Chlorine)
Daily Water Production Rate	42 GPD
Product Efficiency Rating	26.5 %
Electrical Requirements:	120 Vac / 60Hz

- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- Refer to the owners manual for specific installation instructions, manufacturer's limited warranty, user responsibility, and parts and service availability.
- The Influent water to the system shall include the following characteristics:
 - o No organic solvents
 - o Chlorine: < 2 ppm
 - o pH: 7 - 8
 - o Temperature: 41 ~ 95 °F (5 ~ 35 °C)
 - o Iron: < 2 ppm
 - o Turbidity: < 1 NTU
 - o Hardness: < 1000 mg/L

ARSENIC FACTS

Arsenic (abbreviated As) is found naturally in some well water. Arsenic in water has no color, taste or odor. It must be measured by a lab test. Public water utilities must have their water tested for arsenic. You can get the results from your water utility. If you have your own well, you can have the water tested. The local health department or the state environmental health agency can provide a list of certified labs. The cost is typically \$15 to \$30. Information about arsenic in water can be found on the Internet at the US Environmental Protection Agency website: www.epa.gov/safewater/arsenic.html

There are two forms of arsenic: pentavalent arsenic (also called As(V), As(+5), and arsenate) and trivalent arsenic (also called As(III), As(+3), and arsenite). In well water, arsenic may be pentavalent, trivalent, or a combination of both. Special sampling procedures are needed for a lab to determine what type and how much of each type of arsenic is in the water. Check with the labs in your area to see if they can provide this type of service.

Reverse osmosis (RO) water treatment systems do not remove trivalent arsenic from water very well. RO systems are very effective at removing pentavalent arsenic. A free chlorine residual will rapidly convert trivalent arsenic to pentavalent arsenic. Other water treatment chemicals such as ozone and potassium permanganate will also change trivalent arsenic to pentavalent arsenic. A combined chlorine residual (also called chloramine) may not convert all the trivalent arsenic. If you get your water from a public water utility, contact the utility to find out if free chlorine or combined chlorine is used in the water system.

The CP-07BLO system is designed to remove pentavalent arsenic. It will not convert trivalent arsenic to pentavalent arsenic. The system was tested in a lab. Under those conditions, the system reduced 0.050 mg/L pentavalent arsenic to 0.010 mg/L (ppm) (the USEPA standard for drinking water) or less. The performance of the system may be different at your installation. Have the treated water tested for arsenic to check if the system is working properly.

The RO component of the CP-07BLO system must be replaced every 20 months to ensure the system will continue to remove pentavalent arsenic. The component identification and locations where you can purchase the component are listed in the installation/operation manual.

* VOC Surrogate Claims

Chemical	Drinking water regulatory level ¹ (MCL/MAC) mg/L	Influent challenge concentration ² mg/L	Chemical reduction percent	Maximum product water concentration mg/L
alachlor	0.002	0.050	> 98	0.001 ³
atrazine	0.003	0.100	> 97	0.003 ³
benzene	0.005	0.081	> 99	0.001 ³
carbofuran	0.04	0.190	> 99	0.001 ³
carbon tetrachloride	0.005	0.078	98	0.0018 ⁴
chlorobenzene	0.1	0.077	> 99	0.001 ³
chloropicrin	-	0.015	99	0.0002 ³
2,4-D	0.07	0.110	98	0.0017 ⁴
dibromochloropropane(DBCP)	0.0002	0.052	> 99	0.00002 ³
o-dichlorobenzene	0.6	0.080	> 99	0.001 ³
p-dichlorobenzene	0.075	0.040	> 98	0.001 ³
1,2-dichloroethane	0.005	0.088	95 ⁵	0.0048 ⁵
1,1-dichloroethylene	0.007	0.083	> 99	0.001 ³
cis-1,2-dichloroethylene	0.07	0.170	> 99	0.0005 ³
trans-1,2-dichloroethylene	0.1	0.086	> 99	0.001 ³
1,2-dichloropropane	0.005	0.080	> 99	0.001 ³
cis-1,3-dichloropropylene	-	0.079	> 99	0.001 ³
dinoseb	0.007	0.170	99	0.0002 ⁴
endrin	0.002	0.053	99	0.00059 ⁴
ethylbenzene	0.7	0.088	> 99	0.001 ³
ethylene dibromide (EDB)	0.00005	0.044	> 99	0.00002 ³
haloacetonitriles (HAN)				
bromochloroacetonitrile	-	0.022	98	0.0005 ³
dibromoacetonitrile	-	0.024	98	0.0006 ³
dichloroacetonitrile	-	0.0096	98	0.0002 ³
trichloroacetonitrile	-	0.015	98	0.0003 ³
haloketones (HK):				
1,1-dichloro-2-propanone	-	0.0072	99	0.0001 ³
1,1,1-trichloro-2-propanone	-	0.0082	96	0.0003 ³
heptachlor (H-34,Heptox)	0.0004	0.08	> 99	0.0004
heptachlor epoxide	0.0002	0.0107 ⁶	98	0.0002 ⁶
hexachlorobutadiene	-	0.044	> 98	0.001 ³
hexachlorocyclopentadiene	0.05	0.060	> 99	0.000002 ³
lindane	0.0002	0.055	> 99	0.00001 ³
methoxychlor	0.04	0.050	> 99	0.0001 ³
pentachlorophenol	0.001	0.096	> 99	0.001 ³
simazine	0.004	0.120	> 97	0.004 ³
styrene	0.1	0.150	> 99	0.0005 ³
1,1,2,2-tetrachloroethane	-	0.081	> 99	0.001 ³
tetrachloroethylene	0.005	0.081	> 99	0.001 ³
toluene	1	0.078	> 99	0.001 ³
2,4,5-TP (silvex)	0.05	0.270	99	0.0016 ⁴
tribromoacetic acid	-	0.042	> 98	0.001 ³
1,2,4-trichlorobenzene	0.07	0.160	> 99	0.0005 ³
1,1,1-trichloroethane	0.2	0.084	95	0.0046 ⁴
1,1,2-trichloroethane	0.005	0.150	> 99	0.0005 ³
trichloroethylene	0.005	0.180	> 99	0.0010 ³
trihalomethanes (includes):				
chloroform (surrogate chemical)				
bromoform				
bromodichloromethane	0.080	0.300	95	0.015
chlorodibromomethane				
xylene (total)	10	0.070	> 99	0.001 ³

1. These harmonized values were agreed upon by representatives of USEPA and Health Canada for the purpose of evaluating products to the requirements of this Standard.

2. Influent challenge levels are average influent concentrations determined in surrogate qualification testing.

3. Maximum product water level was not observed but was set at the detection limit of the analysis.

4. Maximum product water level is set at a value determined in surrogate qualification testing.

5. Chemical reduction percent and maximum product water level calculated at chloroform 95% breakthrough point as determined in surrogate qualification testing.

6. The surrogate test results for heptachlor epoxide demonstrated a 98% reduction. These data were used to calculate an upper occurrence concentration which would produce a maximum product water level at the MCL.

State of California
Department of Public Health
Water Treatment Device
Certificate Number
08 - 1934

Date Issued: September 11, 2008

Trademark/Model Designation

Woongjin Coway Co. LTD Lyon2 CP-07BL0

Replacement Element(s)

WJNF8-S
WJMF8-20-S
WJCC-02
WJIF8

Manufacturer: Woongjin Coway Co LTD

The water treatment device(s) listed on this certificate have met the testing requirements pursuant to Section 116830 of the Health and Safety Code for the following health related contaminants:

Microbiological Contaminants and Turbidity

None

Inorganic/Radiological Contaminants

Arsenic¹
Barium
Cadmium
Chromium (hexavalent)
Chromium (trivalent)
Lead
Nitrate/Nitrite²
Radium 226/228
Selenium

Organic Contaminants

VOCs

Alachlor
Atrazine
Benzene
Carbofuran
Carbon Tetrachloride
Chlorobenzene
Chloropicrin
2,4-D
DBCP
o-Dichlorobenzene
p-Dichlorobenzene
1,2-Dichloroethane
1,1-Dichloroethylene
cis-1,2-Dichloroethylene
trans-1,2-Dichloroethylene
1,2-Dichloropropane
cis-1,3-Dichloropropylene
Dinoseb

Endrin
Ethylbenzene
EDB
Haloacetonitriles (HAN)
Bromochloroacetonitrile
Dibromoacetonitrile
Dichloroacetonitrile
Trichloroacetonitrile
Haloketones (HK)
1,1-Dichloro-2-Propanone
1,1,1-Trichloro-2-Propanone
Heptachlor
Heptachlor Epoxide
Hexachlorobutadiene
Hexachlorocyclopentadiene
Lindane
Methoxychlor
Pentachlorophenol

Simazine
Styrene
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Toluene
2,4,5-TP (Silvex)
Tribromoacetic Acid
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
Trihalomethanes (THMs)
Bromodichloromethane
Bromoform
Chloroform
Chlorodibromomethane
Xylenes

Rated Service Capacity: 165 gal

Rated Service Flow: 0.07 gpm

Do not use with water that is microbiologically unsafe or of unknown quality, without adequate disinfection before or after the system.

¹ Claims for arsenic reduction shall only be made on water supplies maintaining detectable residual free chlorine at the reverse osmosis (RO) system inlet. Water systems using an in-line chlorinator should provide a minimum of 1 minute chlorine contact time before the RO system.

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. A sampling and analysis test kit for nitrate is provided for checking the performance of this system. Frequent analysis is encouraged.