

# Water Filtration System Performance Data Sheet



**Model: P-09CRA**

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 and NSF/ANSI 372 for low lead compliance. 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	Influent Challenge Concentration (mg/L unless specified)	Maximum Allowable Product Water Concentration (mg/L unless specified)	Percent Reduction (%)
Arsenic (Pentavalent)	0.30 ± 10%	0.010	98.4
Barium	10.0 ± 10%	2.0	97.8
Radium 226/228	25 pCi/L	5 pCi/L	80
Cadmium	0.03 ± 10%	0.005	98.3
Chromium (Hexavalent)	0.3 ± 10%	0.1	98.5
Chromium (Trivalent)	0.3 ± 10%	0.1	98.8
Lead	0.15 ± 10%	0.010	97.5
Selenium	0.10 ± 10%	0.05	98.9
TDS	750 ± 40	187	96.7
Aesthetic Chlorine	2.0 ± 10%	≥ 50% reduction	98.0
Particulate Class I (≥ 0.5 µm to < 1 µm)	at least 10,000 particles/mL	≥ 85% reduction	91.3
VOCs*	0.300 ± 10%	≥ 95% reduction	99.6

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

## General Operating Information:

Rated Capacity	113 gallons (for VOC) 6 282 gallons (for Aesthetic Chlorine)
Min-Max operating pressure:	10 ~ 120 psi (69 kPa ~ 827 kPa)
Min-Max feed water temperature:	41 ~ 95 °F (5 ~ 35 °C)
Rated Service Flow	0.07 GPM
Daily Water Production Rate	40.7 GPD
Product Efficiency Rating	12.4 %

- 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:
  - No organic solvents
  - Chlorine: < 2 mg/L
  - pH: 7 - 8
  - Temperature: 41 ~ 95 °F (5 ~ 35 °C)
  - Iron: < 2 mg/L
  - Turbidity: < 1 NTU
  - Hardness: < 1 000 mg/L

- For parts and service availability, please contact your local dealer or Coway.
- 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 0.30 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 the Arsenic Facts section of this Performance Data Sheet for further information.
- 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.
- The product water should be tested every 6 months to ensure that the contaminants are being reduced effectively. Please contact your local dealer or Coway to initiate this service.
- This reverse osmosis system contains a replaceable treatment components, critical for the effective reduction of total dissolved solids and that product water shall be tested periodically to verify that the system is performing properly. Replacement of reverse osmosis component should be with one of identical specifications, as defined by the manufacturer, to assure the same efficiency and contaminant reduction performance.
- The estimated replacement time of filter, which is a consumable part, is not an indication of quality guarantee period, but it means the ideal time of filter replacement. Accordingly, the estimated time of filter replacement may be shortened in case it is used in an area of poor water quality.

Model of Filter	Type	Usable period (months)	Cost (US \$)
WJSF11-M-20	SEDIMENT FILTER (20 μm)	6	32.00
WJSF11-M-5	SEDIMENT FILTER (5 μm)	6	33.00
WJNF11-M	NEO-SENSE FILTER	6	35.00
WJMF11-50-M	RO MEMBRANE FILTER	24	127.00
WJIF11-M-D-PLUS	PLUS INNO-SENSE FILTER (D)	6	61.00

## 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. Information about arsenic in water can be found on the Internet at the US Environmental Protection Agency website: [www.epa.gov/safewater/arsenic.html](http://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 P-09CRA 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 0.30 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 P-09CRA system must be replaced every 24 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

Substance	Influent Challenge Concentration (mg/L unless specified)	Maximum Allowable Product Water Concentration (mg/L unless specified)	Percent Reduction (%)
alachlor	0.050	0.001	> 98
atrazine	0.100	0.003	> 97
benzene	0.081	0.001	> 99
carbofuran	0.190	0.001	> 99
carbon tetrachloride	0.078	0.0018	98
chlorobenzene	0.077	0.001	> 99
chloropicrin	0.015	0.0002	99
2,4-D	0.110	0.0017	98
dibromochloropropane(DBCP)	0.052	0.00002	> 99
o-dichlorobenzene	0.080	0.001	> 99
p-dichlorobenzene	0.040	0.001	> 98
1,2-dichloroethane	0.088	0.0048	95 <sup>1</sup>
1,1-dichloroethylene	0.083	0.001	> 99
cis-1,2-dichloroethylene	0.170	0.0005	> 99
trans-1,2-dichloroethylene	0.086	0.001	> 99
1,2-dichloropropane	0.080	0.001	> 99
cis-1,3-dichloropropylene	0.079	0.001	> 99
dinoseb	0.170	0.0002	99
endrin	0.053	0.00059	99
ethylbenzene	0.088	0.001	> 99
ethylene dibromide (EDB)	0.044	0.00002	> 99
haloacetonitriles (HAN)			
bromochloroacetonitrile	0.022	0.0005	98
dibromoacetonitrile	0.024	0.0006	98
dichloroacetonitrile	0.0096	0.0002	98
trichloroacetonitrile	0.015	0.0003	98
haloketones (HK):			
1,1-dichloro-2-propanone	0.0072	0.0001	99
1,1,1-trichloro-2-propanone	0.0082	0.0003	96
heptachlor (H-34,Heptox)	0.08	0.0004	> 99
heptachlor epoxide	0.0107 <sup>6</sup>	0.0002	98
hexachlorobutadiene	0.044	0.001	> 98
hexachlorocyclopentadiene	0.060	0.000002	> 99
lindane	0.055	0.00001	> 99
methoxychlor	0.050	0.0001	> 99
pentachlorophenol	0.096	0.001	> 99
simazine	0.120	0.004	> 97
styrene	0.150	0.0005	> 99
1,1,2,2-tetrachloroethane	0.081	0.001	> 99
tetrachloroethylene	0.081	0.001	> 99
toluene	0.078	0.001	> 99
2,4,5-TP (silvex)	0.270	0.0016	99
tribromoacetic acid	0.042	0.001	> 98
1,2,4-trichlorobenzene	0.160	0.0005	> 99
1,1,1-trichloroethane	0.084	0.0046	95
1,1,2-trichloroethane	0.150	0.0005	> 99
trichloroethylene	0.180	0.0010	> 99
trihalomethanes (includes): chloroform (surrogate chemical)			
bromoform	0.300	0.015	95
bromodichloromethane			
chlorodibromomethane			
xylenes (total)	0.070	0.001	> 99

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