



**Philips
Reverse Osmosis
Water Station
Filter Cartridge with
Aquaporin Inside™**

2000L purifying capacity
(up to 1 year / 5L per day)



ADD583/79

Biomimetic membrane

Removes 110* harmful substances

The biomimetic membrane incorporates aquaporin proteins to filter water faster and more energy-efficient. Replacement cartridge for Philips Water Stations ADD6920BK/79 and ADD6921DG/79.

Filters over 110 contaminants*

- Chlorine (>99.5%)
- Fluoride (>99.5%)
- Bacteria (99.9999%)
- Viruses (99.999%)
- Bentazone (>99.6%)
- 2,4,6-Trichlorophenol TCP (99.9%)
- PFOA (>99.0%)
- PFOS (>98.9%)
- Hardness
- Lead (Pb)
- Pesticide
- Volatile organic compound
- Metal Ions
- Total Dissolved Solids (TDS)

PHILIPS

Aquaporin Inside™ RO Filter Cartridge

Reverse Osmosis with Aquaporin Inside™ 6-layer integrated filter with Remineraliser technology, 2000L purifying capacity, Last up to 1 year

Highlights

6-layer All-in-One Filter



Multi-stage purification system: 1 - Polypropylene 2 - Activated Carbon 3 - Polypropylene 4 - RO membrane with Aquaporin Inside™ 5 - Activated Carbon 6 - Adding Minerals The filtration system can effectively remove 110 kinds of harmful substances down to 0.0001 micron*. Providing you cleaner and fresher tasting water.

Aquaporin Inside™ Reverse Osmosis technology



Harnessing the power of nature. The biomimetic Reverse Osmosis membrane incorporates aquaporin proteins to replicate nature's own water filtration process and filters water faster and better than ever before. Aquaporin Inside™ Reverse Osmosis filtration technology is developed by Aquaporin A/S (Denmark) in collaboration with NASA and ESA for aerospace activities. This partnership highlights the level of technical innovation, performance and durability.

Mineralization technology



RO purified water lacks minerals after filtering through the membrane. The best way to reach your mineral intake goals is through a balanced diet that includes necessary nutrients. To improve the taste of RO water, the remineralization technology in the ADD583 filter cartridge enhances the purified water with approx 0.2 mg/l strontium minerals (this is lower than the health reference level provided by the US Environmental Protection Agency [EPA] of 1.5 mg/l or the lifetime health advisory or 4 mg/L for strontium levels in drinking water).

Excellent filtration efficiency



The Philips Quick Twist multi stage RO filter with Aquaporin Inside™ technology is extremely efficient: only 1 volume waste water is created when 3 volumes purified water are produced (drain ratio 3:1). Traditional RO systems produce 12 volumes of waste water for 3 volumes of purified water (drain ratio 1:4). Great when water sources are scarce!

ADD583/79

Specifications

Filter specifications

- Main filter media: RO
- Filtration capacity: 2000L

General specifications

- gross weight: 1.1 kg
- net weight: 0.8 kg
- Filter quantity: 1-pack
- Packaging Dimension (L*W*H): 125*125*39 mm

Main parameters

- Applicable water temperature: 5-38 °C
- Rated water flow: 0.2 l/min



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** Tested by 3rd party testing agency under laboratory conditions.
The contaminants or other substances reduced by this water filter
are not necessarily in all users' water.

This system has been tested by 3rd party testing agencies, such as SGS and laboratory accredited by CNAS, under laboratory conditions, according to test methods nominated by Philips for reduction of the substances listed below.



Filtration performance data for the Philips ADD583/79 Reverse Osmosis Filter Cartridge

used in the Philips Aquaporin Inside™ Reverse Osmosis Countertop Water Stations ADD6920 and ADD6921

Filter Model	Filter capacity	Recommended filter lifetime	Flow rate	Filtration precision
ADD583	2000L	12 months	0.2L/min	Down to 0.0001 micron

Number	Test item(s)	Unit(s)	Test result(s)		Removal rate(s)(%)
			Influent spiked water	Effluent filtrated water	
1	MS2 coliphage	pfu/mL	1.7×10 ⁵	<1	99.999
2	Total coliforms	CUF/100mL	1.4×10 ⁶	<1	99.9999
3	Ammonia nitrogen (as N)	mg/L	2.501	<0.025	>99.0
4	Sulphide	mg/L	2.00	<0.02	>99.0
5	Formaldehyde	mg/L	9.00	<0.05	>99.4
6	Chloramine	mg/L	3.00	<0.01	>99.6
7	Anion synthetic detergent	mg/L	2.500	<0.025	>99.0
8	Boron (B)	mg/L	4.996	<0.002	>99.9
9	Barium (Ba)	mg/L	7.086	<0.005	>99.9
10	Beryllium (Be)	mg/L	0.218	<0.002	>99.0
11	Molybdenum (Mo)	mg/L	1.89	<0.02	>98.9
12	Nickel (Ni)	mg/L	2.02	<0.02	>99.0
13	Sodium (Na)	mg/L	1423.9	95.5	93.3
14	Antimony (Sb)	mg/L	0.103	<0.001	>99.0
15	Silver (Ag)	mg/L	1.06	<0.05	>95.2
16	Cyanogen chloride	mg/L	0.50	<0.01	>98.0
17	Dichloroacetic acid(DCAA)	mg/L	1.33	<0.01	>99.2
18	Trichloroacetic acid(TCAA)	mg/L	1.35	<0.01	>99.2
19	Chloral	mg/L	0.1	<0.01	>99.90
20	2,4,6-Trichlorophenol	mg/L	1.2100	<0.0005	>99.9
21	Dissociate chlorine residue	mg/L	2.00	<0.01	>99.5
22	Chlorine dioxide	mg/L	2.00	<0.02	>99.0
23	Ampicillin	ug/L	9.432	<0.005	>99.9
24	Amoxicillin	ug/L	9.739	<0.005	>99.9
25	Tetracycline	ug/L	3.258	<0.005	>99.8
26	Chlorotetracycline	ug/L	4.131	<0.005	>99.8
27	Oxytetracycline	ug/L	4.498	<0.005	>99.8
28	Sulfadiazine	ug/L	4.496	<0.005	>99.8
29	Sulfamethazine	ug/L	5.313	<0.005	>99.9
30	Roxithromycin	ug/L	4.265	<0.005	>99.8
31	Norfloxacin	ug/L	5.982	<0.005	>99.9
32	Bis(2-ethylhexyl) phthalate	mg/L	0.040	<0.002	>95.0
33	Atrazine	mg/L	0.243	<0.001	>99.5
34	Lindane (γ-BHC)	mg/L	0.1580	<0.0005	>99.6
35	Benzene hexachloride(BHC)	mg/L	0.4380	<0.0010	>99.7
36	Trichloroethene	mg/L	0.5241	<0.0001	>99.9
37	Dibromochloromethane	mg/L	1.4067	<0.0001	>99.9
38	Bromodichloromethane	mg/L	0.8721	<0.0001	>99.9
39	1,2-Dichloroethane	mg/L	0.4779	<0.0001	>99.9
40	Methylene chloride	mg/L	0.4688	0.0047	99.0
41	1,1,1-Trichloroethane	mg/L	41.7090	<0.0001	>99.9
42	Bromoform	mg/L	1.2582	<0.0001	>99.9
43	1,1-Dichloroethene	mg/L	0.4740	<0.0005	>99.8
44	Cis-1,2-dichloroethene	mg/L	0.3366	<0.0005	>99.8
45	Trans-1,2-dichloroethene	mg/L	0.3758	<0.0001	>99.9
46	1,2-Dichlorobenzene	mg/L	2.7191	<0.0001	>99.9
47	1,4-Dichlorobenzene	mg/L	0.5085	<0.0001	>99.9
48	Total Trichlorobenzene	mg/L	0.2160	<0.0003	>99.8
49	Hexachlorobutadiene	mg/L	0.0079	<0.0001	>98.7
50	Acrylamide	mg/L	0.0136	<0.0005	>96.4
51	Tetrachloroethene	mg/L	0.3622	<0.0001	>99.9
52	Epichlorohydrin	mg/L	0.0170	<0.0004	>97.6
53	Benzo(a)pyrene	mg/L	0.00050	<0.00001	>98.0
54	Vinyl chloride	mg/L	0.5237	<0.0005	>99.9
55	Chlorobenzene	mg/L	0.1463	<0.0001	>99.9
56	Total trihalomethanes (TTHMs)	mg/L	4.0482	<0.0004	>99.9
57	2,4-D	mg/L	1.130	<0.001	>99.9
58	DDT	mg/L	0.019	<0.001	>95.7
59	Malathion	mg/L	1.176	<0.001	>99.9
60	Parathion	mg/L	0.048	<0.001	>97.9
61	Parathion methyl	mg/L	0.044	<0.001	>97.7
62	Dimethoate	mg/L	0.357	<0.001	>99.7
63	Pentachlorophenol	mg/L	0.2350	<0.0005	>99.7
64	Chlorothalonil	mg/L	0.627	<0.001	>98.4
65	Heptachlor	mg/L	0.021	<0.001	>95.2
66	Hexachlorobenzene	mg/L	0.088	<0.001	>98.8
67	Dichlorvos	mg/L	0.017	<0.001	>94.1
68	chlorpyrifos	mg/L	0.158	<0.001	>99.3
69	Bentazone	mg/L	0.308	<0.001	>99.6
70	Carbofuran	mg/L	0.148	<0.001	>99.3
71	Deltamethrin	mg/L	0.232	<0.001	>95.6
72	Chlorite	mg/L	3.84	<0.01	>99.7
73	Bromate	mg/L	1.03	<0.01	>99.0
74	Chlorate	mg/L	3.89	<0.01	>99.7
75	Ethylbenzene	mg/L	0.7581	<0.0001	>99.9
76	Xylene	mg/L	6.4823	<0.0003	>99.9
77	Toluene	mg/L	9.4896	<0.0001	>99.9
78	Benzene	mg/L	0.8881	<0.0001	>99.9
79	Styrene	mg/L	2.2338	<0.0001	>99.9
80	Staphylococcus aureus	CUF/100mL	1.2×10 ⁶	<1	>99.9999

This system has been tested by 3rd party testing agencies, such as SGS and laboratory accredited by CNAS, under laboratory conditions, according to test methods nominated by Philips for reduction of the substances listed below.



Filtration performance data for the Philips ADD583/79 Reverse Osmosis Filter Cartridge

used in the Philips Aquaporin Inside™ Reverse Osmosis Countertop Water Stations ADD6920 and ADD6921

Filter Model	Filter capacity	Recommended filter lifetime	Flow rate	Filtration precision
ADD583	2000L	12 months	0.2L/min	Down to 0.0001 micron

Number	Test item(s)	Test result
81	Chroma	Pass
82	Turbidity	Pass
83	Odor sum	Pass
84	Substance visible to the naked eye	Pass
85	Volatile phenols (phenols)	Pass
86	Oxygen consumption (CODMn method, measured in O2)	Pass
87	Total dissolved solids	Pass
88	Total hardness (CaCO3)	Pass
89	Cyanide	Pass
90	Chromium (Hexavalent)	Pass
91	Lead(Pb)	Pass
92	Cadmium(Cd)	Pass
93	Aluminum(Al)	Pass
94	Iron(Fe)	Pass
95	Manganese(Mn)	Pass
96	Copper(Cu)	Pass
97	Zinc(Zn)	Pass
98	Arsenic(As)	Pass
99	Mercury(Hg)	Pass
100	Selenium(Se)	Pass
101	Fluoride	Pass
102	Chloride	Pass
103	Nitrate (In N)	Pass
104	Sulfate	Pass
105	Trichloromethane	Pass
106	Carbon Tetrachloride	Pass
107	Free Residual Chlorine	Pass
108	Total Colony Count	Pass
109	Thermophilic Coliform	Pass
110	Burkholderia	Pass

- All measured contaminants reduced by this filter are listed.
- Not all contaminants listed may be present in your water.
- Filter does not remove all contaminants that may be present in tap water.
- Testing was performed under standard laboratory conditions, actual performance may vary.
- Removal rate (%) = (Influent spiked water test result - Effluent filtrated water test result) / Influent spiked water test result × 100%.

Philips Reverse Osmosis
Countertop Water Stations
with Aquaporin Inside™



ADD6920BK/79



ADD6921DG/79

Register your product and learn more via the website link : www.philips.com/water

Specifications are subject to change without prior notice

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A 3D diagram illustrating the Aquaporin Inside™ reverse osmosis filtration technology. It shows a cross-section of a grey membrane with a grid of small pores. Blue aquaporin proteins, depicted as ring-like structures, are embedded in the membrane. Water molecules, represented as small blue spheres with white dots for hydrogen atoms, are shown passing through these proteins. Orange, spiky particles representing contaminants are shown being blocked by the membrane. A blue channel on the right side of the membrane shows water being filtered through. The background is a light blue gradient.

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Reverse Osmosis

Aquaporin Inside™

Aquaporin Inside™ reverse osmosis filtration technology incorporates aquaporin proteins to replicate nature's own water filtration process for more energy-efficient filtration than ever before.

Aquaporin proteins are placed in the cell membrane for transporting water – and only water – in and out of the cell. It was discovered by Dr. Peter Agre in 1988, and it brought him the Nobel Award in Chemistry in 2003. Due to its highly selective and long-lasting features, this technology was also developed with NASA for in-space drinking water applications.