

Performance Data Brochure



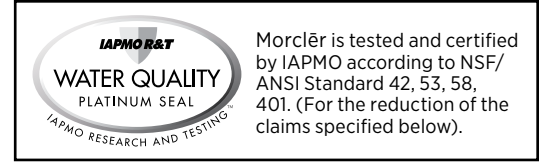
Product: Morcler Model 103529 / Use Guidelines:

The Morcler water purifier requires regular replacement of all filters to operate properly. The Pre-Carbon/Moringa Filter needs to be changed every 28 days, the VOC filter every 12 months or 600 gallons, whichever comes first and the reverse osmosis membrane needs to be replaced every 2 years or 1200 gallons, whichever comes first. Your water quality may affect filter life & replacement frequency.

See manual for explanation of performance indications data.

Please be aware that:

- Not all contaminants listed may be present in your water.
- Morcler may not remove all contaminants that may be present in your tap water.
- Morcler is only to be used with cold water.
- Morcler usage must comply with all state and local laws.
- Testing was performed under standard laboratory conditions, actual performance may vary.
- Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.
- Spent absorption media will not be reactivated and used.



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

Operating Parameters	Imperial	Metric Units
Input Power	120 Volt - 60 Hz	120 Volt - 60 Hz
Temperature	39-100° F	4-38° C
Inlet Water Quality Limits		
Total Dissolved Solids (TDS)		1500 mg/L
Maximum Hardness †‡:		10 gpg (171 mg/L)
Sulphide, Iron & Manganese ‡:		<0.1 mg/L
Chlorine		<2 ppm
pH		3-11
Turbidity		5 NTU Max.
Recovery – 80%	Daily Production Rate – 54 GPD	Efficiency – 75%

† If the hardness of your water is above 10 gpg (171 mg/L), lime scale will build up rapidly on the membrane inside of the RO membrane cartridge. Scale build up will plug the RO membrane cartridge and make the system ineffective. We do not recommend the Morcler to be used with water in excess of 10 gpg (171 mg/L) hardness, unless the water is softened prior to the reverse osmosis system.

Performance Data Sheet

The concentration of the indicated substances in water was reduced to a concentration less than or equal to the permissible levels as specified in NSF/ANSI 42, 53 and 58. Organic chemicals included by surrogate testing.

NSF/ANSI 53 (VOC Filter) Substance	Influent Challenge Concentration mg/L	Maximum Permissible Product Water Concentration mg/L	Minimum Reduction
Alachor	0.050	0.001	>98%
Atrazine	0.100	0.003	>97%
Benzene	0.081	0.001	>99%
Carbofuran	0.190	0.001	>99.5%
Carbon Tetrachloride	0.078	0.0018	98%
Chlorobenzene	0.077	0.001	>99%
Chlorpicrin	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%
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	0.0001	99%
Endrin	0.053	0.00059	99%
Ethylbenzene	0.088	0.001	>99%
Ethylene Dibromide (Edb)	0.044	0.0002	>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%

NSF/ANSI 53 (VOC Filter) Substance	Influent Challenge Concentration mg/L	Maximum Permissible Product Water Concentration mg/L	Minimum Reduction
Haloketones (HK):			
1,1-Dichloro-2-propane	0.0072	0.0001	99%
1,1,1-Trichloro-2-propane	0.0082	0.0003	96%
Heptachlor	0.025	0.00001	>99%
Heptachlor Epoxide	0.0107	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%
Pentachloophenol	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	0.001	>99%
Trihalomethanes (Includes):			
Chloroform (Surrogate Chemical)			
Bromoform	0.300	0.015	95%
Bromodichloromethane			
Chlorodibromomethane			
Xylenes (Total)	0.070	0.001	>99%

NSF/ANSI 58 Substance (RO Filter)	Influent Challenge Concentration mg/L	Maximum Permissible Product Water Concentration mg/L	Reduction Requirements	Minimum Reduction	Average Reduction
Barium	10 +/- 10%	2	N/A	88.0%	96.4%
Hexavalent Chromium	0.30 +/- 10%	0.10	N/A	94.3%	97.2%
Trivalent Chromium	0.3 +/- 10%	0.10	N/A	92.3%	98.0%
TDS	750 +/- 20	22	75%	75.7%	87.1%
Copper	3 +/-10%	1.3	N/A	90.6%	95.2%
Cyst ³	≥ 50,0000 ms/L	N/A	99.95%	99.99%	99.99%
Fluoride	8 +/- 10%	1.5	N/A	91.8%	93.5%
Lead	0.15 +/- 10%	0.010	N/A	97.5%	99.1%
Radium ² 226/228	25pCi/L +/- 10%	5pCi/L	N/A	88.0%	96.4%
Selenium	0.10 +/- 10%	0.05	N/A	95.7%	98.1%

- While testing was performed under standard laboratory conditions, actual performance may vary depending on water pressure, temperature and other substances, water quality and other conditions.
- Based upon testing methods using Barium as a surrogate. All concentrations in pCi/L pico curie/L.
- Includes Giardia lamblia, Entamoeba histolyca and Cryptosporidium.
- Recovery rating 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.
- 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.

NSF/ANSI 42 Substance (Pre-Carbon/Moringa Filter)	Reduction Requirement	Influent Challenge Concentration	Overall Reduction
Chlorine Reduction, Free Available	≥ 50%	2.0 mg/l ±10%	96.6%

Replacement Filters

- Moringa Filter | Pre-Carbon/Moringa Filter Part #103530. Replace every 28 days
- RO Filter | Reverse Osmosis Membrane Part #103532. Replace every 1200 gallons or 2 years, whichever comes first
- VOC filter | VOC Carbon filter Part #103531. Replace every 600 gallons or 12 months, whichever comes first

Before use, read and understand owner's manual for installation & operating instructions as well as manufacturer's limited warranty.

Note: The manufacturer is required to re-test the product every 5 years for material safety, structural integrity, and all performance claims made.

Any potential changes to the product are required to be submitted to the certification agency for technical review and approval prior to implementation.

For technical questions regarding the use of this product, please contact our customer service specialists at contact below.

This system has been tested according to NSF/ANSI 401 for 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 401.

NSF/ANSI 401 (Pre-Carbon/Moringa Filter) Substance	Influent Challenge Concentration ng/L*	Maximum Permissible Product Water Concentration ng/L*
Meprobamate	400 ± 20%	60
Phenytoin	200 ± 20%	30
Atenolol	200 ± 20%	30
Carbamazepine	1,400 ± 20%	200
TCEP	5,000 ± 20%	700
TCPP	5,000 ± 20%	700
DEET	1,400 ± 20%	200
Metolachlor	1,400 ± 20%	200
Trimethoprim	140 ± 20%	20
Ibuprofen	400 ± 20%	60
Naproxen	140 ± 20%	20
Estrone	140 ± 20%	20
Bisphenol A	2,000 ± 20%	300
Linuron	140 ± 20%	20
Nonyl phenol	1,400 ± 20% 200	200

* While a majority of regulated contaminants like Hexavalent Chromium and lead are measured either in milligrams or micrograms per liter, many contaminants covered by NSF/ANSI 401 are only found in trace amounts and thus are measured in a smaller increment known as nanograms per liter (ng/L). To put this in perspective, 1 ng/L is the equivalent of 1/1000th of a microgram per liter, which would be the same as 1 ounce in 7.5 billion gallons of water.