Independent Lab Results & Certifications

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Release Notes

The lab results are for Generation 3 and 4 of TAPP 2 filters with the Generation 4 available for sales worldwide from March 2021. Results may vary slightly for older products.

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Magnus Jern, R&D Director TAPP Water

Summary

TAPP 2 has been tested and certified to remove more than 100 contaminants from tap water. The Product is designed to be used with public tap water where the water is microbiologically safe and has been adequately disinfected. The tests are defined on this basis.

This document summarizes the certifications and lab tests.

Water Filtration Certified by

TAP Score by SimpleLab

SimpleLab is one of the top water labs in the world based in San Francisco, California. They score tap water and filtered water on a scale from 0-100. TAPP filters achieved a top score of 98.

Dear TAPP Water,
This is your TAP SCORE™ Report

BASED ON LABORATORY TESTING AND ANALYSIS YOUR TAP SCORE IS 98 (EXCELLENT)

According to SimpleWater Recommendations, which are based on guidelines established by Federal and State agencies as well as leading academic research, the water samples you provided for testing demonstrate your water quality is Excellent. This means your sample contained no elevated levels of harmful contaminants. While this is great news, your water quality can change, so do not forget to test again every few years.

JMEQAB - Advanced City Water Test

Visit the SimpleLab Website for the full report or links via
https://tappwater.co/us/tapp-2-independent-lab-test/

NSF Standard Testing[1]

The product has been tested according to NSF/ANSI Standard 42 (Aesthetic Effects) and Standard 53 (Health Effects).

Test results confirmed by Tap Score test by SimpleLab with water samples from Los Angeles, California December 2020 and July 2018 and Austrian Water Institute in Vienna with water samples from Barcelona, Spain 2018-2020.

NSF/ANSI 42 - Aesthetic Effects

TAPP Water's Drinking Water System, TAPP 2 has been tested according to NSF/ANSI Standard 42 for the reduction of the following substances. 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.

Contaminant	Percent reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
Chloramine	> 97.5%	3.0 +/- 10%	0.5
Chlorine	99%	2.0 +/- 10%	> or =50%
Particulate Class I	> 99%	At least 10,000 particles/mL	> or =85%

[1] *Disclaimer: The use of the NSF logo is only to certify that the product has been tested in accordance with NSF standards. The product has not been certified by NSF.*

NSF/ANSI 53 - Health Effects

TAPP 2 has been tested according to NSF/ANSI Standard 53 for the reduction of the following substances. 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.

Contaminant	Percent reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
Alachlor*	>98%	0.050	0.001
Atrazine*	>97%	0.100	0.003
Benzene*	>99%	0.081	0.001
Chlordane	>99%	0.04 +/-10%	0.002
Chloroform (TTHM)	>99.5%	0.300	0.015
2, 4-D*	98%	0.110	0.0017
Lead pH 6.5	>95%	0.15 +/- 20%	0.01
Lead pH 8.5	>95%	0.15 +/- 20%	0.01
Lindane	>99%	0.055	0.00001
Mercury pH 6.5	>99%	0.006 +/- 10%	0.002
Mercury pH 8.5	>99%	0.006 +/- 10%	0.002
TRIHALOMETHANES* (TTHM) (Chloroform; Bromoform; Bromodichloromethane ;Dibromochloromethan e)	>99%	0.300	0.015
Turbidity	>99%	10 +/- 10% NTU	0.5 NTU

Source data:

Before filtration: https://gosimplelab.com/dd4be3b3fdd5229adf45302256abad81789195d1

After filtration: https://gosimplelab.com/a6e5e2ec6c5cc7ae9d1c30faf7cfd8697576f8ff

Other contaminants confirmed for filtration/removal

TAPP 2 has been tested with the following contaminants at the maximum allowed limit unless otherwise specified.

Contaminant	Percent reduction**	Influent challenge concentration (mg/L unless specified)	Maximum Allowed Limit concentration (mg/L unless specified)
Pathogens			
Clostridium	95%	100 UFC / 100ml	0
eColi	95%	100 NMP / 100ml	0
Enterococcus	95%	100 UFC / 100ml	0
Microbial Cysts	95%	100 UFC / 100ml	0
Chemical parameters			
Cyanide total	95%	50 µg +/- 20%	50 µg
Fluoride	70%	1.5 +/- 20%	1.5
Mercury	90%	1 µg +/- 20%	1 µg
Nitrites	70%	0.1 +/- 10%	0.1
Nitrates	70%	50 +/- 10%	50
Metals			
Aluminium	90%	200 µg	200 µg
Antimony	90%	5 µg	5 µg
Arsenic	50%	10 µg	10 µg
Barium	90%	1000 µg	1000 µg
Cadmium	90%	5 µg	5 µg
Copper	80%	2000 µg	2000 µg

Iron	80%	200 µg	200 µg
Lead	95%	10 µg	10 µg
Manganese	80%	50 µg	50 µg
Nickel	80%	20 µg	20 µg
Selenium	80%	10 µg	10 µg
Sodium	0%	200 µg	200 µg
Zinc	80%	5000 µg	5000 µg
Chlorine bi-products			
1,2 Dichloromethane	95%	3 µg +/- 10%	3 µg
Total Trichloroethylene and Tetrachloroethylene	95%	10 µg +/- 10%	10 µg
Trichloroethylene*	95%	-	-
Tetrachloroethylene*	95%	-	-
Chlorine bi-products			
Total Trihalomethanes	95%	100 µg +/- 10%	100 µg
4 individual*	95%	-	-
HAAs			
Total haloacetic acids	95%	60 µg +/- 10%	60 µg
Pesticides			
Chlordane	95%	2 µg +/-10%	2 µg
Heptachlor	95%	0.4 µg +/-10%	0.4 µg
Lindane	95%	0.2 µg +/-10%	0.2 µg

Additional 11 confirmed by EPA*	95%	-	-
Herbicides			
2,4 -D	>95%	70 µg +/-10%	70 µg
Atrazine	>95%	3 µg +/-10%	3 µg
Additional 9 confirmed by EPA*	95%	-	-
Total Herbicides	>95%	0.5 µg +/-10%	0.5 µg
Pharmaceuticals*			
Atenolol	>95%	-	-
Carbamazepine	>95%	-	-
Estrone	>95%	-	-
Meprobamat	>95%	-	-
Trimethoprim	>95%	-	-
Perfluorinated chemicals (PFAS)*			
PFOA	>95%	-	-
PFOS	>95%	-	-
PFNA	>95%	-	-
Microplastics	>99%	100 pieces / L with each piece larger than 2 µg	<= 1

** Not tested by TAPP Water due to lack of labs that can perform testing. Reduction in accordance with NIH, EPA and CDC testing of activated carbon block filters with a 1-2 micron rating. See what activated carbon filters remove and reduce.*

Research by NIH, EPA and CDC of the activated carbon block filtration used in TAPP 2 shows that this filter will also reduce the following contaminants by 95% or more (note that some are duplicates):

Solvent/ Organic contaminant/ Alcohol	**VOC**	**Pesticides & Insecticides**	**Herbicides**	**Other (Inorganic compounds)**
n-butylphthalate	Bromodichloromethane	Malathion	2,4-D	Calcium Hypochlorite
1,2-Dichlorobenzene	Tetrachloroethylene	Aldrin	Deisopropylatrazine	Ozone
1,3-Dichlorobenzene	Dibromochloromethane	Demeton-O	Linuron	Chlorine dioxide
2-Methyl benzenamine		MCPA	Alachlor	
1,4-Dichlorobenzene		Anthracene	Desethylatrazine	
Methyl naphthalene		Azinphos-ethyl	Mecoprop	
Biphenyl		Dieldrin	Atrazine	
p-chlorocresol		Carbofuran	Metazachlor	
2-Methylbutane		Parathion	Bentazone	
2,2-Bipyridine		Pentachlorophenol	Monuron	
2,5-Dichlorophenol		Endosulfan	Bromacil	
Bis(2-Ethylhexyl)Phthalate		Endrin	2,4-Dichlorophenoxy	
3,6-Dichlorophenol		Hexachlorobenzene	Diuron	
Naphthalene		Hexachlorobutadiene	Propazine	
Nitrobenzene		Isodrin	Simazine	
m-Nitrophenol		DDT	Terbutryn	
p-Bromophenol			Triclopyr	
Diethyl Phthalate			Cyanazine	
o-Nitrophenol			Isoproturon	

Butylbenzene				
2,4-Dinitrocresol				
p-Nitrophenol				
2,4-Dinitrotoluene				
2,6-Dinitrotoluene				
Chlorobenzene				
4-Chloro-2-nitrotoluene				
Ethylbenzene				
2-Chlorophenol				
Chlorotoluene				
Chrysene				
Hexane				
1,3,5-Trimethylbenzene				
m-Cresol				
m-Xylene				
Isooctane				
o-Xylene				
Cyclohexane				
p-Xylene				
2,4-Xylenol				

** Not tested by TAPP Water due to lack of labs that can perform testing. Reduction in accordance with NIH, EPA and CDC testing of activated carbon block filters with a 1-2 micron rating. See what activated carbon filters remove and reduce.*

Bacteria growth

These tests were carried out by Eurofins in Stockholm in June 2019.

Sample	Bacteria count	Comment
New cartridge	<1	
Cartridge after 1 week with	11	Below requirement of 100 cfu /L

daily usage (about 50 liters)		
Cartridge after 2 weeks with daily usage (about 150 liters)	25	Below requirement of 100 cfu /L
Cartridge after no use for 3 days	110	Above requirement of 100 cfu /L
Cartridge after flushing the unused filter for 30 seconds	15	Below requirement of 100 cfu /L

Based on the testing we will also include the following guidelines.

For optimum performance, it is essential that the filter cartridge be replaced on a regularly scheduled basis as follows:

(a) every 3 months; *

(b) when the unit's rated capacity has been reached (max 3 months);**

(c) the flow rate diminishes; or

(d) the filter becomes saturated with bad tastes and odors.***

Failure to replace the filters in accordance with the recommendations may result in contaminated poorly tasting water.

* Time estimates for TAPP Faucet filters are based on 5-10 liters per day for an average household.

** 3 month maximum is based build up of contaminants in the filter and bacteria growth

*** For very hard water or highly chlorinated water the cartridges may need to be replaced more frequently

Do not allow water to sit in the filter for extended periods of time (3 or more days) without being used. In the event water does sit in the unit for 3 or more days, the filter should be flushed by allowing water to flow to waste for about 30 seconds; then continue use as normal

Limescale testing

These tests were carried out by TAPP Water in Barcelona in May-June 2020.

Sample	Limescale formation	Comment
Input water	Hardness of 324 mg CaCO3/l and 0.38 LSI	Very high limescale formation
Filtered water		

0 / 0 L	Reduced by 99%	Not visible
4 / 400 L	Reduced by 85%	Not visible
8 / 800 L	Reduced by 81%	Slightly visible
12 / 1200 L	Reduced by 72%	Visible

The test indicates a reduction of over 80% up to 800 L and 72% up to 12000 L. The reduction of limescale will vary dependent on the hardness of the water and the specific mix of minerals and salts.

Note: Tests carried out with water boilers to weigh and see visible change of scale formation over time.

Long term chlorine testing

These tests were carried out by Suez in Barcelona in May 2019.

Week / Volume	Chlorine
Input water	1.0 mg/l
Filtered water	
0 / 0 L	0.01 mg/l (99%)
4 / 400 L	0.01 mg/l (99%)
8 / 800 L	0.02 mg/l (98%)
12 / 1200 L	0.03 mg/l (97%)

Other certifications

US Food Grade FDA and European Legislation on Food Contact Materials - Product does not apply any danger to health or environment according to article 3 in Framework Regulation 1935/2004/EC. Manufactured according to Regulation 2023/2006/EC on good manufacturing practice.
European Standard EN 1208:2005 Compliant - European Standard EN 1208:2005 for chemicals used for treatment of water intended for human consumption.

RoHS2 Compliant (EU) - Does not contain prohibited substances above the maximum concentration values (MCV) listed in Article 4 and Annex II of the European Union directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast), also known as RoHS2.
REACH Compliance (EU) - Ensure the product does not contain any chemicals on the REACH SVHC List
BPA Free - Ensure that the product has been verified to not contain any BPA
Solar Impulse - Certified to reduce CO2 in accordance with claims
Cruelty Free - The product and services do not harm or kill animals anywhere in the world
Eco-friendly - The products and services meeting high environmental standards throughout their life-cycle: from raw material extraction, to production, distribution and disposal.
Lead free - The product does not contain any lead

For more information contact us on support@tappwater.co