



TEST REPORT

1. NO : CT19-021718

2. Client

○ Name : SEONDO ELECTRONICS CO.,LTD

○ Address : 7-29 Shinchon 2 Ro, Paju City, Kwunggi-do, Korea

3. Date of Test : 2019.02.13 ~ 2019.03.25

4. Use of Report : Quality Control

5. Test Sample : Terra Water Research CTU

6. Test Method

(1) Official methods of Water Purifier
(Ministry of Environment notification 2016-50,
2016.02.29)

Reissuance(R1)

Date : 2019.03.25

Affirmation	Tested By Name : Ji Su Kim <i>Jisu Kim</i>	Technical Manager Name : Chan Joo Ryu <i>Yang</i>
Our report apply only to the standards or procedures identified and to the sample(s) tested unless otherwise specified. The test results are not indicative of representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products. The authenticity of this test report can be checked on KCL website(www.kcl.re.kr).		

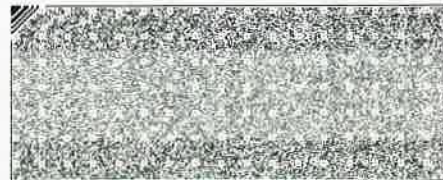
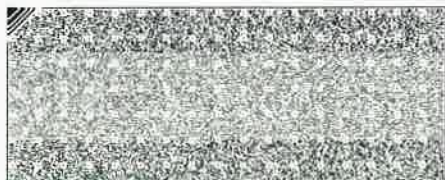
2019.03.25

Korea Conformity Laboratories

President Yoon, Kap Seok *Yoon, Kap Seok*

Address : 08503 199, Gasan digital 1-ro, Geumcheon-gu, Seoul, Korea 82-2-2102-2500

Result Inquiry : Environmental Testing Center 82-2-2102-2738



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7. Test Results

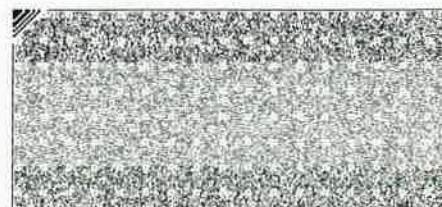
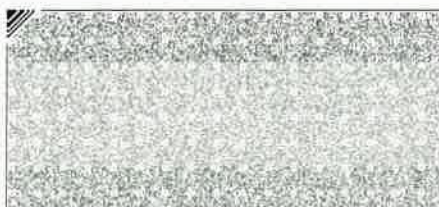
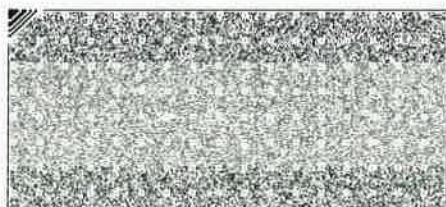
1) Terra Water Research CTU

Compulsory Purification Ability

Test Item	Units	LOQ	In-Flow Conc.	Out-Flow Conc.	Removal Rate (%)	Test method used	Remark
Free Residual chlorine	mg/L	0.003	2.01	Not detected	100	(1)	-
Turbidity	NTU	0.002	5.32	0.11	98	(1)	-
Color	Degree	0.003	15	Not detected	100	(1)	-
Chloroform	mg/L	0.002	0.270	Not detected	100	(1)	-

Elective Purification Ability

Test Item	Units	LOQ	In-Flow Conc.	Out-Flow Conc.	Removal Rate (%)	Test method used	Remark
Dichloromethane	mg/L	0.003	0.196	Not detected	100	(1)	-
1,1-Dichloroethylene	mg/L	0.002	0.288	Not detected	100	(1)	-
1,1,1-Trichloroethane	mg/L	0.003	0.316	Not detected	100	(1)	-
Carbon tetrachloride	mg/L	0.002	0.019	Not detected	100	(1)	-
Benzene	mg/L	0.002	0.100	Not detected	100	(1)	-
Trichloroethylene	mg/L	0.002	0.297	Not detected	100	(1)	-
Toluene	mg/L	0.002	1.985	Not detected	100	(1)	-
Tetrachloroethylene	mg/L	0.002	0.100	Not detected	100	(1)	-
Ethylbenzene	mg/L	0.002	0.892	Not detected	100	(1)	-
Xylene	mg/L	0.002	1.493	Not detected	100	(1)	-
Total Trihalomethane	mg/L	0.001	0.297	Not detected	100	(1)	-
1,2-Dibromo-3-chloropropane	mg/L	0.001	0.010	Not detected	100	(1)	-
Trichloroacetonitrile	mg/L	0.0005	0.0401	Not detected	100	(1)	-
Chloral hydrate	mg/L	0.0005	0.0849	Not detected	100	(1)	-
Dibromoacetonitrile	mg/L	0.0005	0.3195	Not detected	100	(1)	-
Dichloroacetonitrile	mg/L	0.0005	0.2779	Not detected	100	(1)	-
Haloacetic acid	mg/L	0.001	0.326	Not detected	100	(1)	-
Diazinon	mg/L	0.0005	0.0633	Not detected	100	(1)	-
Parathion	mg/L	0.0005	0.1922	Not detected	100	(1)	-
Fenitrothion	mg/L	0.0005	0.1289	Not detected	100	(1)	-
Carbaryl	mg/L	0.005	0.220	Not detected	100	(1)	-



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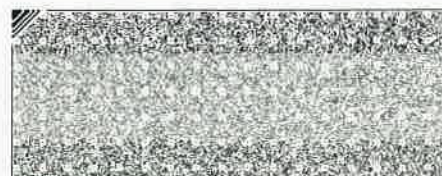
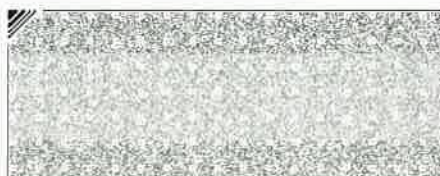
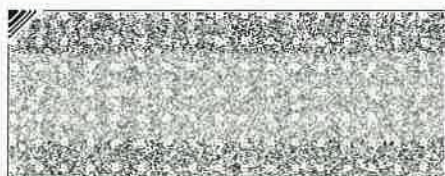
7. Test Results

1) Terra Water Research CTU

Test Item	Units	LOQ	In-Flow Conc.	Out-Flow Conc.	Removal Rate (%)	Test method used	Remark
1,4-dioxane	mg/L	0.001	0.168	Not detected	100	(1)	-
Formaldehyde	mg/L	0.02	0.54	0.53	2	(1)	-
Phenol	mg/L	0.005	0.051	Not detected	100	(1)	-
Alkyl Benzene Sulfonate	mg/L	0.1	1.4	0.1	93	(1)	-
Cyanide	mg/L	0.01	0.48	0.38	21	(1)	-
Mercury	mg/L	0.001	0.011	Not detected	100	(1)	-
Lead	mg/L	0.005	0.531	Not detected	100	(1)	-
Arsenic	mg/L	0.005	0.535	0.398	26	(1)	-
Selenium	mg/L	0.005	0.097	0.069	29	(1)	-
Cadmium	mg/L	0.002	0.052	Not detected	100	(1)	-
Chrome	mg/L	0.02	0.53	0.21	60	(1)	-
Iron	mg/L	0.05	0.90	Not detected	100	(1)	-
Manganese	mg/L	0.004	0.934	0.571	39	(1)	-
Copper	mg/L	0.008	3.235	Not detected	100	(1)	-
Zinc	mg/L	0.002	9.831	6.703	32	(1)	-
Aluminium	mg/L	0.02	0.67	Not detected	100	(1)	-
Boron	mg/L	0.01	3.05	2.96	3	(1)	-
Fluoride	mg/L	0.15	4.69	4.29	9	(1)	-
Chloride	mg/L	1	342	334	2	(1)	-
Sulfate	mg/L	2	404	396	2	(1)	-
Nitrate nitrogen	mg/L	0.1	34.3	32.2	6	(1)	-
Ammonium Nitrogen	mg/L	0.02	1.75	1.55	11	(1)	-
Hardness	mg/L	1	600	590	2	(1)	-
<i>E. coli</i>	CFU/mL	-	980	Not detected	100	(1)	-

► Removal Rate(%) : Removal Rate(%)=(Inflow water Conc. - Outflow water Conc.) / Inflow water Conc. X 100

► Water Pressure : 1.0 kgf/cm²



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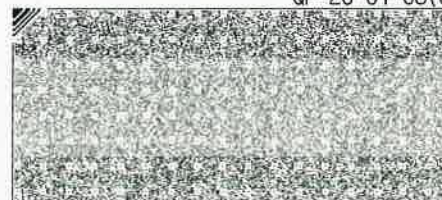
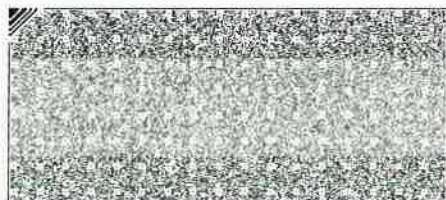
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7. Test Results

1) Terra Water Research CTU

Extraction Test of Water Purifier

Test Item	Units	LOQ	Standard	Test Results	Test method used	Remark
Taste	-	-	Tasteless	Tasteless	(1)	-
Odor	-	-	Odor less	Odor less	(1)	-
Color	degree	0.1	below 0.5	Not detected	(1)	-
Turbidity	NTU	0.02	below 0.2	0.10	(1)	-
Permanganate Consumption value	mg/L	0.3	below 1.0	0.6	(1)	-
Evaporation residue	mg/L	5	below 50	38	(1)	-
Carbon tetrachloride	mg/L	0.0002	below 0.000 2	Not detected	(1)	-
Dichloromethane	mg/L	0.001	below 0.002	Not detected	(1)	-
1,1,1-Trichloroethane	mg/L	0.001	below 0.01	Not detected	(1)	-
1,1,2-Trichloroethane	mg/L	0.0005	below 0.000 6	Not detected	(1)	-
Benzene	mg/L	0.001	below 0.001	Not detected	(1)	-
1,1-Dichloroethylene	mg/L	0.001	below 0.003	Not detected	(1)	-
1,2-Dichloroethane	mg/L	0.0001	below 0.000 4	Not detected	(1)	-
Cis-1,2-Dichloroethylene	mg/L	0.001	below 0.004	Not detected	(1)	-
Trichloroethylene	mg/L	0.001	below 0.003	Not detected	(1)	-
Tetrachloroethylene	mg/L	0.0005	below 0.001	Not detected	(1)	-
Epichlorohydrin	mg/L	0.005	below 0.01	Not detected	(1)	-
Vinyl acetate	mg/L	0.005	below 0.01	Not detected	(1)	-
Styrene	mg/L	0.001	below 0.002	Not detected	(1)	-
1,2-Butadiene	mg/L	0.001	below 0.001	Not detected	(1)	-
1,3-Butadiene	mg/L	0.001	below 0.001	Not detected	(1)	-
N,N-Dimethylaniline	mg/L	0.01	below 0.01	Not detected	(1)	-
Toluene	mg/L	0.001	below 0.07	Not detected	(1)	-
Xylenes	mg/L	0.001	below 0.05	Not detected	(1)	-
2,4-Toluene diamine	mg/L	0.001	below 0.002	Not detected	(1)	-
2,6-Toluene diamine	mg/L	0.0007	below 0.001	Not detected	(1)	-
Phenols	mg/L	0.0005	below 0.000 5	Not detected	(1)	-
Formaldehyde	mg/L	0.005	below 0.1	0.018	(1)	-
Bisphenol A	mg/L	0.01	below 0.01	Not detected	(1)	-
Fluoride	mg/L	0.1	below 0.15	Not detected	(1)	-
Chloride	mg/L	0.1	below 25	7.1	(1)	-
Nitrate Nitrogen & Nitrate Nitrogen	mg/L	0.1	below 1	Not detected	(1)	-
Alkyl Benzene Sulfonate	mg/L	0.01	below 0.05	Not detected	(1)	-
Cyanide	mg/L	0.001	below 0.001	Not detected	(1)	-



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Test Item	Units	LOQ	Standard	Test Results	Test method used	Remark
Mercury	mg/L	0.0001	below 0.000 1	Not detected	(1)	-
Aluminum	mg/L	0.005	below 0.04	0.039	(1)	-
Arsenic	mg/L	0.0005	below 0.001	Not detected	(1)	-
Cadmium	mg/L	0.0005	below 0.000 5	Not detected	(1)	-
Hexavalent chromium	mg/L	0.005	below 0.005	Not detected	(1)	-
Copper	mg/L	0.001	below 0.1	Not detected	(1)	-
Manganese	mg/L	0.003	below 0.03	Not detected	(1)	-
Lead	mg/L	0.0008	below 0.001	Not detected	(1)	-
Zinc	mg/L	0.001	below 0.3	Not detected	(1)	-
Selenium	mg/L	0.001	below 0.001	Not detected	(1)	-
Iron	mg/L	0.005	below 0.03	Not detected	(1)	-
Nickel	mg/L	0.001	below 0.04	Not detected	(1)	-
Silver	mg/L	0.005	below 0.01	0.011	(1)	-
Antimony	mg/L	0.001	below 0.004	Not detected	(1)	-
Sodium	mg/L	0.01	below 20	Not detected	(1)	-
Boron	mg/L	0.01	below 0.1	0.25	(1)	-

— End of Report —

