

FAIREY INDUSTRIAL CERAMICS LABORATORY

Lymedale Cross Industrial, Lower Milehouse Lane, Staffs ST5 9BT
PHONE 1782-66-44-20 EPA EST No. 69096-GBR-001

FILTER WATER TEST REPORT

Report # TRN 6751 (British Berkefeld Ultra Fluoride)

Report Date: 05/11/2021

Customer Name: Doulton Water Filters

Product: British Berkefeld Gravity Filter with post filter

Volume Tested: T1 300 gallons; T2 200 gallons

Flushing Volume: 1 gallon

Test Descriptions:

T1. Doulton Ultra Fluoride Filter candle tested using an accelerated protocol under pressure, at a flow rate of 0.5LPM and sampling points under gravity, with a 1 ppm nominal influent fluoride concentration.

T2. Doulton Ultra Fluoride Filter candle tested using an accelerated protocol under pressure, at a flow rate of 0.5LPM and sampling points under gravity with a 3-4 ppm nominal influent fluoride concentration, results are reported in table 2.

Table 1.

USG capacity	Influent Challenge (ppm)	Ultra Fluoride Effluent (ppm)	% Ultra Fluoride Efficiency 1ppm challenge
10 gallons	1.195	0.013	98.9
25 gallons	1.167	0.182	84.4
50 gallons	1.23	0.225	81.7
75 gallons	0.997	0.334	66.5
100 gallons	0.945	0.211	77.7
125 gallons	0.991	0.184	81.4
150 gallons	1.20	0.214	82.2
175 gallons	1.046	0.402	61.6
200 gallons	1.749	0.289	83.4
225 gallons	1.083	0.571	47.3
250 gallons	1.134	0.243	78.6
275 gallons	0.861	0.249	71.1
300 gallons	1.007	0.429	57.4
Ave	1.123	0.273	76.0

Table 2.

USG capacity	Influent Challenge (ppm)	Ultra Fluoride Effluent (ppm)	% Ultra Fluoride Efficiency 3-4ppm challenge
10 gallons	3.839	0.135	96.5
25 gallons	3.917	0.443	88.7
50 gallons	3.984	0.476	88.1
75 gallons	4.327	0.755	82.6
100 gallons	4.119	0.530	87.1
125 gallons	3.679	0.831	77.4
150 gallons	3.750	0.621	74.6
175 gallons	3.263	0.471	85.6
200 gallons	4.479	2.588	42.2
Ave	3.92	0.761	80.5

Discussion of Results:

When tested to 300USG with an average 1.123 ppm fluoride challenge using an accelerated test protocol, the Ultra Fluoride candles provided an average of 76% reduction.

When tested to 200USG with an average 3.92 ppm fluoride challenge using an accelerated test protocol, the Ultra Fluoride candles provided an average of 80.% reduction.

Joy Delaney

Joy Delaney

Technical Director