

# *Environmental Monitoring Service*

Testing and research laboratory for water, soil and food products

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## Test Report

Customer name: Basic Water Needs BV

Nature of sample: Blue micro membrane filters

Sample ID: Filters N1, N2, N3

Tests start: 12/03/15

Tests completed: 30/05/15

Sample collected: By lab personal

Lab ID: 105

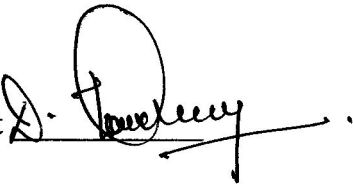
**Aim:** To test life time durability and efficiency for blue micro membrane filters with red cap.

**Method:** 3 filters were chosen. Tap water with the next parameters was used: pH 6.1-6.4, EC 180-210 uS/cm, temp. 25-28 °C, Turbidity 0.3 NTU, Alkalinity 68-75 mg/L as CaCO<sub>3</sub>, Total hardness 75-83 mg/L. Water was passed through the filters and after every 1000 liter water was spiked with clay to get turbidity of 1000-1200 NTU. With this high turbidity the water filters became blocked and were back washed 20 times. With 80 cm water pressure (distance from the water level to filters output level) the flow was measured and recorded. Every 2000 liter the influent water was spiked with E.coli culture with a concentration of 10<sup>6</sup>-10<sup>7</sup> cfu/100 ml and the bacteria removal rate was checked.

Test results are tabulated below:

Amount of water passed through the each filters in liters	Filter N 1		Filter N 2		Filter N 3	
	Flow per hour in liter after back-washing	E.coli removal in %	Flow per hour in liter after back-washing	E.coli removal in %	Flow per hour in liter after back-washing	E.coli removal in %
1000	40	100	41	99.9990	43	100
2000	37	100	40	100	41	1000
3000	34	100	30	100	36	100
4000	30	-	28	-	33	-
5000	29	100	30	100	32	100
6000	26	-	25	-	25	-
7000	28	100	25	100	25	100
8000	28	-	26	-	26	-
9000	21	100	18	100	22	100
10000	20	-	21	-	22	-
11000	24	100	24	100	24	100
12000	23	-	23	-	22	-
13000	20	100	20	100	22	100
14000	20	-	20	-	21	-
15000	17	100	18	100	20	100
16000	17	-	18	-	21	-

17000	20	100	19	100	18	100
18000	18	-	20	-	19	-
19000	20	100	20	100	20	100
20000	19	-	21	-	18	-
21000	18	100	19	99.997	17	100
22000	18	-	18	-	19	-
23000	17	100	19	100	18	100
24000	18	-	17	-	17	-
25000	17	100	18	100	15	100
26000	18	-	16	-	15	-
27000	16	100	15	100	14	100
28000	14	-	13	-	12	-
29000	12	100	11	100	12	99.9994
30000	10	-	11	-	9	-

Analyst 

Lab executive 