

TEST REPORT

Client: Next Filtration

Product: Next Sand

Tests Undertaken: BS 6920: 2000 Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water

Report Number: MAT/LAB 629E

Date of Report: 16th November 2012

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0626

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Product: Next Sand

Test Criteria: BS 6920: 2000

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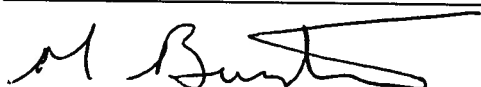
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1. EXECUTIVE SUMMARY

Test	Result
Odour and flavour of water	Pass
Appearance of water	Not applicable
Growth of aquatic microorganisms	Not applicable
The extraction of substances that may be of concern to public health	Not applicable
Extraction of metals	Pass

**Limited testing was undertaken on this product at the customer's request.
This product has satisfied the criteria set out in BS 6920: Part 1: 2000, Clauses 4 & 8
for use with cold water.**



Mr Michael Bustin, Laboratory Manager – Materials Testing

16th November 2012

Date

Please note the following statements
a) The samples of the product referred to in this report have been tested in accordance with the methods specified in BS 6920: 2000 Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water.
b) This work has been undertaken in the UKAS accredited laboratory of WRc-NSF Ltd Oakdale, UKAS registration number 0626, unless otherwise stated. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
c) The results specified in this report relate only to the samples(s) of this product submitted for testing. Any changes in the nature or source of ingredients and the process of manufacturer or application could affect the suitability of this product for use in contact with potable water.
d) We draw to your attention that reports issued by the accredited test laboratories do not of themselves constitute approval by the Water Regulations Advisory Scheme or the test laboratory. Only a letter from the Scheme, citing a Directory Reference number can be regarded as indicating approval.
e) Materials and products intended for use by a public water supply company in the preparation or conveyance of water may need to satisfy more comprehensive toxicological requirements as specified by the Drinking Water Inspectorate. These additional requirements are necessary to ensure Water Company usage complies with Regulation 31 of the Water Supply (Water Quality) Regulations 2000.

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2. SAMPLES FOR TESTING

BS 6920: Part 2: Section 2.1 and in-house method PROC/MAT 001.

Contact name	Mike Smethurst
Name of organisation	Next Filtration
Address	Eco Innovation Centre City Road Peterborough PE1 1SA

Product	Next Sand
Product manufacturer	Next Filtration
Submitting organisation	Next Filtration
Product manufacturing site	USA

Date of receipt of product for test	01/09/12
Trade name and reference of product	Next Sand
Batch number	Not Provided
General nature of product	Clinoptilolite
Shore hardness	Not applicable
Typical use of the product	Water filtration

WRc-NSF Test Report**Commercial in Confidence**

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Sampling procedure	Random
Receipt conditions	In good condition
Receipt packaging	Plastic bag
Storage conditions	As in BS 6920: Part 2: Section 2.1: Clause 5.2
Description/appearance of the product for testing	Natural grit/sand

Test sample preparation	2 g \pm 0.2 g of sand was used for testing
Date test sample manufactured	Not applicable
Calibration mark of test container	1 L

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3. ODOUR AND FLAVOUR OF WATER

Methodology: BS 6920: Part 2: Section 2.2.1 and in-house method PROC/MAT 004 and 006.

Date leaching tests started: 30/09/12	Date leaching tests finished: 01/10/12
Number of panellists: 3	Temperature of extraction: 23 °C ±2 °C

Odour test

Extract	Date of test	Test water	Dilution number*	Odour descriptor
First	01/10/12	Chlorine free	0(0)	None
First	01/10/12	Chlorinated	0(0)	None
Final	-	Chlorine free	-	-
Final	-	Chlorinated	-	-

Flavour test

Extract	Date of test	Test water	Dilution number*	Flavour descriptor
First	01/10/12	Chlorine free	1(0)	None
First	01/10/12	Chlorinated	1(0)	None
Final	-	Chlorine free	-	-
Final	-	Chlorinated	-	-

* figure in brackets is the number of panellists detecting an odour or flavour at this dilution

First extract becomes final extract

On the basis of these results the samples of this product referred to in this report have been found to comply with the requirements of BS 6920: Part 1: 2000, Clause 4

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4. THE EXTRACTION OF METALS

Methodology: BS 6920: Part 2: Section 2.6 and in-house methods PROC/MAT 006 and INGs, as specified, metals analysis undertaken in the UKAS accredited laboratory of WRc-NSF Ltd Reading, Berks. UKAS registration number 1550.

Date leaching tests started: 23/09/12	Date leaching tests finished: 24/09/12
Temperature of extraction: 23 °C ±2 °C	

First Extract

Date of analysis: 25/09/12	Analysis Registration No. N23472
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Metal (µg L ⁻¹)	MAC (µg L ⁻¹)	LOD (µg L ⁻¹)	Blank 1 (µg L ⁻¹)	Blank 2 (µg L ⁻¹)	Sample 1 (µg L ⁻¹)	Sample 2 (µg L ⁻¹)
Aluminium	200	20	<20	<20	<20	29.4
Antimony	5	0.5	<0.5	<0.5	<0.5	<0.5
Arsenic	10	1	<1	<1	<1	<1
Barium	1000	100	<100	<100	<100	<100
Cadmium	5	0.5	<0.5	<0.5	<0.5	<0.5
Chromium	50	5	<5	<5	<5	<5
Iron	200	20	31.8	23.6	40.3	45.9
Lead	25	1	<1	<1	<1	<1
Manganese	50	5	<5	<5	<5	<5
Mercury	1	0.1	<0.1	<0.1	<0.1	<0.1
Nickel	20	2	<2	<2	<2	<2
Selenium	10	1	<1	<1	<1	<1

Analytical Method (in-house method) - ICPMS Inductively Coupled Plasma Mass Spectrometry (ING113)

MAC - Maximum admissible concentration LOD - Required limit of detection

First extract becomes final extract

In this test the concentration of Iron found in the reagent blanks exceeded the reporting limit of detection for this element. After investigation it was concluded that the test was valid and that the results obtained for the product conform with the requirements of the test.

On the basis of these results the samples of this product referred to in this report have been found to comply with the requirements of BS 6920: Part 1: 2000, Clause 8

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NOTES

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3. Opinions and interpretations in this report are outside the scope of UKAS Accreditation.
4. The results specified in this report relate only to the sample(s) of the product submitted for testing. Any change in the source or nature of the product or materials used in the product, method of manufacture or application could affect the performance of the product.
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