Unit 30 | Fern Close | Pen-Y-Fan Ind Est | Oakdale | Gwent | NP11 3EH | UK
Tel: +44 (0) 1495 236260 wales@nsf.org | www.nsf.org

TEST REPORT

Customer: C0427425

World plastics for construction industries
PO Box 53
Amman, 11512
Jordan

Result	Limited testing was undertaken on this product in accordance with the WRAS Material Guidance document, Table 1, Clause o (pipe manufactured from approved material). Related approval number 1612549. This product has satisfied the criteria set out in BS 6920: Part 1: 2014 "Specification" and thus is suitable for use with cold water but not hot water.
Customer Name	World plastics for construction industries
Product	Aquapipe HDPE Pipes (PE-100)
Test Undertaken	BS 6920: 2014 - 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
Job Number	J-00332313
PAMS Number	190697

Thank you for having your product tested by NSF Wales Ltd.

Please contact your Account Manager if you have any questions or concerns pertaining to this report.

Report Date 09-JUL-2019

Report Authorisation M Rees

Matthew Rees - Materials Laboratory Supervisor

UKAS TESTING
0626

Result Summary Section

Test	Result
Odour and flavour of water BS 6920: Part 1: 2014, Clause 4 - 23°C	Pass
Extraction of Metals BS 6920: Part 1: 2014, Clause 8 - 23°C	Pass

Sample Details

Date of Receipt of Application Form	26/03/19
Date of Receipt of Product for Test	08/04/19
Product	Aquapipe HDPE Pipes (PE-100)
Nature of Material	HDPE
Date Test Sample Manufactured	06/03/19
Batch Number	Lot:B
Receipt Conditions	Good Condition
Receipt Packaging	Clear plastic
Product Manufacturer	World Plastics For Construction Industries
Product Manufacturing Site	Jordan
Tradename and Reference of Product	Aquapipe
Method of Manufacture	Extrusion
Typical Use of the Product	Conveyance of potable water
Material Manufacturer	Borouge Pte Ltd
Tradename and Reference of Material	HE3490-LS
Material Manufacturing Site	United Arab Emirates
Nature of Product	Pipe
Sampling Procedure	Random
Address of Product Manufacturer	P.O Box 53, Industrial zone, AlQastel, Amman, 11512, Jordan

Sample Preparation

Description/Appearance of the product	Black, opaque, rigid pipe
Length	36 mm
Max. length	500 mm
Inner diameter	51 mm
Outer diameter	63 mm
Surface area of one article	181149.0 mm2
Number of articles constituting a sample	0.08
Surface area for test	15037 mm2
Calibration mark of test container	1 L
Storage Conditions	As in BS 6920: Part 2: Section 2.1: Clause 5.2

Job Attachments:

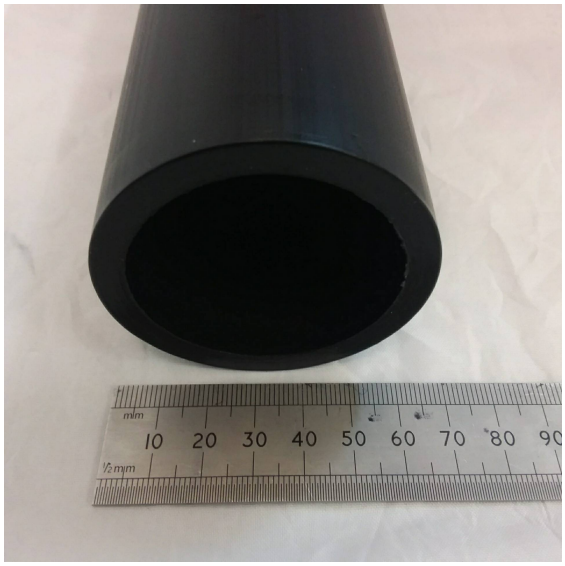

Photo 1

Odour and flavour of water BS 6920: Part 1: 2014, Clause 4 - 23°C

Methodology: BS 6920: Part 2: Section 2.2 and in-house method PROC/MAT 004 and 006.

Date Leaching Test Started: 5-JUN-2019

First Extract - Chlorinated Test Water

Panellist	Odour Descriptor	Flavour Descriptor	Flavour Dilution Number
1	Eggs	None	1
2	None	None	1
3	None	None	1

First Extract - Chlorine Free Test Water

Panellist	Odour Descriptor	Flavour Descriptor	Flavour Dilution Number
1	None	None	1
2	None	None	1
3	None	None	1

On the basis of these results the samples of this product referred to in this report have been found to conform to the requirements of BS 6920: Part 1: 2014, Clause 4.

Extraction of Metals BS 6920: Part 1: 2014, Clause 8 - 23°C

Methodology: BS 6920: Part 2: Section 2.6 and in-house methods PROC/MAT 006 (leachate preparation) and PROC/ING 003 (ICPMS analysis).

Date Leaching Tests Started: 5-JUN-2019

First Extract

Metal (µg/L)	MAC (µg/L)	LOD (µg/L)	Blank (µg/L)	Sample 1 (µg/L)	Sample 2 (µg/L)
Aluminium	200	20	<20	<20	<20
Antimony	5	0.5	<0.5	<0.5	<0.5
Arsenic	10	1	<1	<1	<1
Boron	1000	100	<100	<100	<100
Cadmium	5	0.5	<0.5	<0.5	<0.5
Chromium	50	5	<5	<5	<5
Iron	200	20	<20	<20	<20
Lead	10	1	<1	<1	<1
Manganese	50	5	<5	<5	<5
Mercury	1	0.1	<0.1	<0.1	<0.1
Nickel	20	2	<2	<2	<2
Selenium	10	1	<1	<1	<1

Analytical Method - ICPMS Inductively Coupled Plasma Mass Spectrometry
MAC - Maximum admissible concentration
LOD - Required limit of detection

On the basis of these results the samples of this product referred to in this report have been found to conform to the requirements of BS 6920: Part 1: 2014, Clause 8.

<< Testing Laboratories >>

	Flag	Id	Address
All work performed at: (Unless otherwise specified)	→	NSF_WALES	NSF Wales Ltd. 30 Fern Close Pen-Y-Fan Industrial Estate, Oakdale Gwent, NP11 3EH UK

NOTES

1. This report is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service (UKAS). NSF Wales is UKAS accredited against ISO/IEC 17025:2005 for calibration and testing, laboratory numbers 0248 and 0626 respectively. For details of the laboratory Schedule of Accreditation please see the UKAS website (www.ukas.org).
2. The laboratory provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes.
3. Where a measurement reported is outside the specification limit by a margin less than the measurement uncertainty, the result of the test will be reported as indeterminate and the measurement uncertainty for the test will be quoted alongside the result. Measurement uncertainties for tests are held on file by the laboratory and available on request.
4. Opinions and interpretations in this report are outside the scope of UKAS Accreditation.
5. 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.
6. This test report does not constitute approval or endorsement of the product by either NSF Wales or its parent companies.
7.
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   - Tests marked ‡ have not been performed by NSF Wales and have been performed at an approved subcontract laboratory.
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11. Materials and products intended for use by 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 compiles with Regulation 31 of the Water Supply (Water Quality) Regulations 2010.