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TEST REPORT

Customer: C0273415

Jain Irrigation Systems Ltd
Jain Plastic Park N.H. No 6
P.O. Box 72
Bambhori
425001
India

Result	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	Jain Irrigation Systems Ltd
Product	Jain UPVC Pipe for Water Supply Grey PVC K-6701
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-00303833
PAMS Number	181569

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 08-OCT-2018

Report Authorisation *M Rees*

Matthew Rees - Materials Laboratory Supervisor



0626

Result Summary Section

Test	Result
Odour and flavour of water BS 6920: Part 1: 2014, Clause 4 - 23°C	Pass
Appearance of Water BS 6920: Part 1: 2014, Clause 5	Pass
Growth of Microorganisms BS 6920: Part 1: 2014, Clause 6	Pass
Extraction of substances that may be of concern to public health BS 6920: Part 1: 2014, Clause 7 - 23°C	Pass
Extraction of Metals BS 6920: Part 1: 2014, Clause 8 - 23°C	Pass

Sample Details

Date of Receipt of Application Form	18/07/18
Date of Receipt of Product for Test	12/07/18
Product	Jain UPVC Pipe for Water Supply Grey PVC K-6701
Nature of Material	UPVC
Date Test Sample Manufactured	06/07/18
Batch Number	18187762
Receipt Conditions	Good Condition
Receipt Packaging	Cardboard box
Product Manufacturer	Jain Irrigation Systems Ltd.
Product Manufacturing Site	India
Tradename and Reference of Product	Jain Pipe Grey
Method of Manufacture	Extrusion
Typical Use of the Product	Conveyance of potable water
Material Manufacturer	Reliance Industries Ltd.
Tradename and Reference of Material	PVC K-6701
Nature of Product	Pipe
Sampling Procedure	Random
Address of Product Manufacturer	JISL, Jain Plastic Park, N. H. No, 6 Bambhori, Jalgaon-425 001, India

Sample Preparation

Description/Appearance of the product	Grey, opaque, rigid pipe
Length	37 mm
Inner diameter	60 mm
Outer diameter	63.5 mm
Surface area of one article	15035 mm ²
Number of articles constituting a sample	1
Surface area for test	15035 mm ²
Storage Conditions	As in BS 6920: Part 2: Section 2.1: Clause 5.2

Job Attachments:

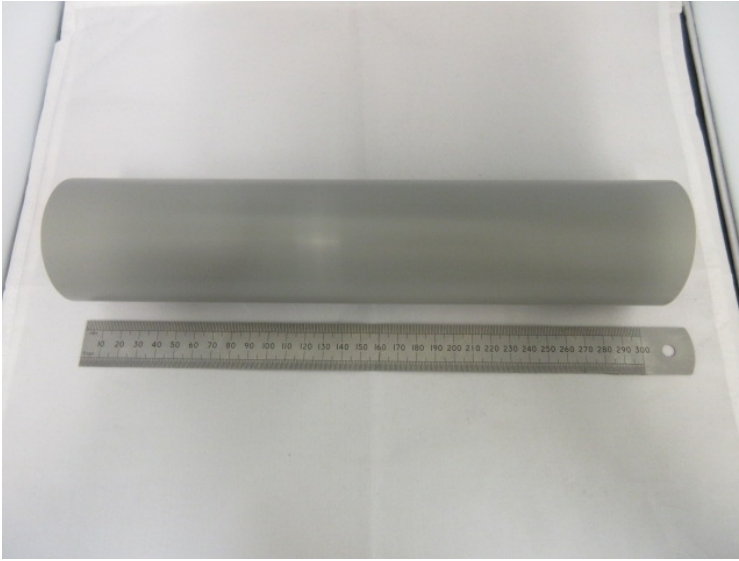


Photo 1

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: 10-SEP-2018

First Extract - Chlorinated Test Water

Panellist	Odour Descriptor	Flavour Descriptor	Flavour Dilution Number
1	None	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.

Appearance of Water BS 6920: Part 1: 2014, Clause 5 - 23°C

Methodology: BS 6920: Part 2: Section 2.3 and in-house methods PROC/MAT 004, PROC/MAT 027 (colour) and PROC/MAT 030 (turbidity).

Date Leaching Test Started: 4-SEP-2018

First Extract

Name	Blank	Extract	Test Sample Effect
Colour (Hazen)	<2	<2	<2
Turbidity (FNU)	<0.1	<0.1	<0.1

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 5.

Growth of Microorganisms BS 6920: Part 1: 2014, Clause 6

Methodology: BS 6920: Part 2: Section 2.4 and in-house method PROC/MIC 001.

Date Test Started: 31-JUL-2018

Incubation temperature: (30 ±1) °C

Units: mg L⁻¹O₂

Mean Dissolved Oxygen Difference	Day 49
Test Sample	0.0
Positive Reference (paraffin wax)	6.3
Negative Reference (glass)	0.1

Mean Dissolved Oxygen	Day 49
Test Water Control	7.9

Comments: At the end of this test, the test sample showed no change in colour or appearance.

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 6.

Extraction of substances that may be of concern to public health BS 6920: Part 1: 2014, Clause 7 - 23°C

Methodology: BS 6920: Part 2: Section 2.5 and in-house methods PROC/MAT 004 and PROC/MIC 004.

Date Leaching Test Started: 4-SEP-2018

Cell concentration used: 5×10^5

Cell morphology: Confluent growth of elongated cells, some round cells and cell debris. Media orange/pink in colour.

Sample/Control	Cell Morphology	Response
Test Sample	Confluent growth of elongated cells, some round cells and cell debris. Media pink in colour.	Non-Cytotoxic
Blank	Confluent growth of elongated cells, some round cells and cell debris. Media pink in colour.	Non-Cytotoxic
Negative Control	Confluent growth of elongated cells, some round cells and cell debris. Media pink in colour.	Non-Cytotoxic
Positive Control	All cells rounded and mainly still in suspension. Media pink in colour.	Non-Cytotoxic

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 7.

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: 31-JUL-2018

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** >>

	<u>Flag</u>	<u>Id</u>	<u>Address</u>
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

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