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TEST REPORT

Customer: C0818213

Vialli GmbH Terminalstrasse Mitte 18 Munich, Bayern 85356 Germany

Revised Report

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 14-JUN-2024

Original issue date: 08-MAR-2024

Report Authorisation

Angelo Iannetelli - Specialist II Labs Wales





Result Summary Section

Test	Result
Odour and flavour of water BS 6920: Part 1: 2014, Clause 4 - 23°C	Pass
Odour and flavour of water BS 6920: Part 1: 2014, Clause 4 - 85°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 substances that may be of concern to public health BS 6920: Part 1: 2014, Clause 7 - 85°C	Pass
Extraction of Metals BS 6920: Part 1: 2014, Clause 8 - 85°C	Pass



Sample Details

Date of Receipt of Application Form	19/09/2023
Date of Receipt of Product for Test	23/10/2023
Product *	VIALLI-De SDR 6 PPR pipe
Nature of Material *	PPR
Date Test Sample Manufactured *	13/04/2023
Batch Number *	13-04-2023
Receipt Conditions	Good Condition
Receipt Packaging	Cardboard box
Product Manufacturer *	Vialli Gmbh
Product Manufacturing Site *	Germany
Tradename and Reference of Product *	VIALLI-De SDR 6 PPR pipe
Method of Manufacture *	Extruded
Typical Use of the Product *	Component in contact with potable water
Material Manufacturer *	Vialli GmbH
Tradename and Reference of Material *	Vialli De PPR
Nature of Product *	Pipe
Sampling Procedure *	Random
Address of Product Manufacturer *	Terminalstrasse Mitte 18, Munich, Bayern, 85356
Submitting Organization *	Vialli Gmbh

^{*} denotes customer supplied information



Sample Preparation

Description/Appearance of the product	Green, opaque, rigid pipe
Length	500 mm
Inner diameter	16.2 mm
Outer diameter	25.2 mm
Surface area of one article	65616.2 mm2
Number of articles constituting a sample	0.23
Surface area for test	15022.2 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: 21-FEB-2024

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.



Odour and flavour of water BS 6920: Part 1: 2014, Clause 4 - 85°C

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

Date Leaching Test Started: 21-FEB-2024

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 - 85°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: 30-JAN-2024

First Extract

Name	Blank	Extract	Test Sample Effect
Colour (Hazen)	<2	<2	<2
Turbidity (FNU)	0.117	0.126	0.009

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: 16-JAN-2024 Incubation temperature: (30 ±1) °C

Units: mg L-1O 2

Mean Dissolved Oxygen Difference	Day 49
Test Sample	0.3
Positive Reference (paraffin wax)	5.8
Negative Reference (glass)	0.5

Mean Dissolved Oxygen	Day 49
Test Water Control	8.1

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: 6-FEB-2024

Cell concentration used: 5 x 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
- .0 .		N 244
Test Sample	Confluent growth of elongated cells, some	Non-Cytotoxic
	round cells and cell debris. Media pink in	
	colour.	
Blank	Confluent growth of elongated cells, some	Non-Cytotoxic
	round cells and cell debris. Media pink in	
	colour.	
Negative Control	Confluent growth of elongated cells, some	Non-Cytotoxic
	round cells and cell debris. Media pink in	
	colour.	
Positive Control	All cells rounded and mainly still in	Cytotoxic
	suspension. Media pink in colour.	

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 substances that may be of concern to public health BS 6920: Part 1: 2014, Clause 7 - 85°C

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

Date Leaching Test Started: 30-JAN-2024

Cell concentration used: 5 x 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 Non-Cytotoxic	
Test Sample	Confluent growth of elongated cells, some round cells and cell debris. Media pink in colour.		
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.	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 - 85°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: 4-MAR-2024

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	<u>ld</u>	
All work performed at: (Unless otherwise specif		≯ NS	F_WALES

NSF Wales Ltd.
NSF Wales Ltd
Unit 30 Fern Close
Pen-Y-Fan Industrial Estate
Oakdale, Newport

Job Notes:

This report replaces previously issued report with serial# FI20240308090902. This report is being re-issued due to a correction in the client's name. This changes the overall status of the report.

Address

NP11 3EH, UK

This report replaces previously issued report with serial# Fl20240607083431. This report is being re-issued due to the addition of the material tradename to the Sample Details table. This does not change the overall status of the report.



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