

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: 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** 04-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 PEXa pipe
Nature of Material *	PEX
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 PEXa pipe
Method of Manufacture *	Extruded
Typical Use of the Product *	Component in contact with potable water
Nature of Product *	Pipe
Sampling Procedure *	Random
Address of Product Manufacturer *	Terminalstrasse Mitte 18, Munich, Bayern, 85356
Submitting Organization *	Vialli Gmbh

<sup>\*</sup> denotes customer supplied information



# **Sample Preparation**

Description/Appearance of the product	Off-white, opaque, rigid pipe
Length	500 mm
Inner diameter	11.7 mm
Outer diameter	16.3 mm
Surface area of one article	44184.6 mm2
Number of articles constituting a sample	0.33
Surface area for test	14716.5 mm2
Calibration mark of test container	1 L
Storage Conditions	As in BS 6920: Part 2: Section 2.1: Clause 5.2



# 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: 20-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	0.133	0.016

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	0.9
Positive Reference (paraffin wax)	5.8
Negative Reference (glass)	0.5

Mean Dissolved	Day 49	
Oxygen		
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
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.	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 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 specifie	ed)	NSF_WALES

Address

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# Fl20240308083901. This report is being re-issued due to a correction in the client's name. This does not change the overall status of the report.

NP11 3EH, UK



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