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TEST REPORT

Customer: C0280493

Vialli GmbH
Terminalstrasse Mitte 18
Munich
Germany

Result	This product has satisfied the criteria set out in BS 6920: Part 1: 2014 "Specification" and thus is suitable for use with hot (up to 85°C) and cold water.
Customer Name	Vialli GmbH
Product	Vialli – De PP-RCT Pipes SDR 7.4 (with Glass Fiber)
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-00486728
Work Order Number	W0889102

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 06-MAR-2025

Report Authorisation

Eleanor Burger - Senior Project Manager Labs

UKAS TESTING
0626

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	02/NOV/2023
Date of Receipt of Product for Test	25/NOV/2024
Product *	Vialli – De PP-RCT Pipes SDR 7.4 (with Glass Fiber)
Nature of Material *	PP-RCT
Date Test Sample Manufactured *	14/12/2023
Batch Number *	Not provided
Receipt Conditions	Good Condition
Receipt Packaging	PLASTIC WRAP
Product Manufacturer *	Vialli Gmbh
Product Manufacturing Site *	Germany
Tradename and Reference of Product *	Vialli – De PP-RCT Pipes SDR 7.4 (with Glass Fiber)
Method of Manufacture *	Extruded
Typical Use of the Product *	Conveyance of potable water
Layer 1 (Inner) Tradename *	VIALLI-De PP-RCT
Layer 1 (Inner) Manufacturer *	Vialli Gmbh
Layer 1 (Inner) Material *	PP
Layer 1 (Inner) Colour *	Green
Layer 2 Tradename *	Vialli Glass Fiber
Layer 2 Manufacturer *	Vialli Gmbh
Layer 2 Material *	Glass Fiber
Layer 2 Color *	Red Orange
Layer 3 Tradename *	VIALLI-De PP-RCT
Layer 3 Manufacturer *	Vialli Gmbh
Layer 3 Material *	PP
Layer 3 Color *	Green
Nature of Product *	Pipe
Sampling Procedure *	Random
Address of Product Manufacturer *	Terminalstrasse Mitte 18, Munich, Bayern, 85356
Submitting Organization *	Mincom Trading LLC

* denotes customer supplied information

Sample Preparation

Description/Appearance of the product	Multilayer pipe. Layer 1 (inner)- Green, opaque. Layer 2- Red, opaque. Layer 3- Green, opaque.
Inner diameter	17.4 mm
Outer diameter	25.2 mm
Calibration mark of test container	1 L
Test sample preparation	For the OFW test, 1 m lengths of the complete pipe were filled with test water and the extract was diluted in accordance with BS 6920-2.2.2. For all other tests, lengths of the inner pipe with a surface area of 15,000 mm2 were used.
Storage Conditions	As in BS 6920: Part 2: Section 2.1: Clause 5.2

Additional Sample Details

Length of test sample	1 m
Total wall thickness	7.8 mm
Internal surface area of test sample	54663.7 mm2
Volume of test water contained within test sample	238 mL
Volume of extract water diluted to 1 L	65 mL

Job Attachments:

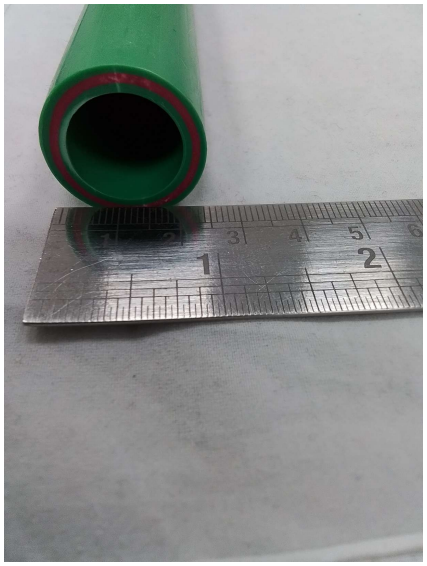

Photo 1

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: 29-JAN-2025

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: 29-JAN-2025

First Extract - Chlorinated Test Water

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

First Extract - Chlorine Free Test Water

Panellist	Odour Descriptor	Flavour Descriptor	Flavour Dilution Number
1	None	None	1
2	Plastic	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: 21-JAN-2025

First Extract

Name	Blank	Extract	Test Sample Effect
Colour (Hazen)	<2	<2	<2
Turbidity (FNU)	0.130	0.124	-0.006

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: 7-JAN-2025

Incubation temperature: (30 ±1) °C

Units: mg $L^{-1}O_2$

Mean Dissolved Oxygen Difference	Day 49
Test Sample	-0.3
Positive Reference (paraffin wax)	6.0
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: 21-JAN-2025

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.	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: 21-JAN-2025

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.	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: 19-FEB-2025

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. NSF Wales Ltd Unit 30 Fern Close Pen-Y-Fan Industrial Estate Oakdale, Newport NP11 3EH, UK

NOTES

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