



TEST REPORT




Testing of Material on Effect of Water Quality
(BS6920 : Part 1 : 2014)

Customer : Guangdong Fortress Chemical Co., Ltd.
廣東千色花化工有限公司
Date : 12 March 2020
Address : Economic Development Zone Xinhui District
Jiangmen City, Guangdong China
Lab. No. : CL/0/G001/01
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Sample Description : AFC Multi-Purpose Coating (see attached photo) used for protecting variety materials' surfaces.
Colour : White
Cement Manufacturer : Guangdong Fortress Chemical Co. Ltd.
Brand : 'FORTRESS'
Country of Origin : China
Test Report No. : AGA00014
Test Period : 10 January 2020 to 05 March 2020
Executive Summary : The submitted sample referred to in this report have been tested in accordance with the methods specified in BS6920 : Part 2 : 2000+A1, A2 and A3:2014 "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 : Method of test". The test results of the submitted sample was found to satisfy with the requirements set out in BS 6920 : Part 1 : 2014, clause 4 to clause 8 and clause 9 (at 35°C) - tests to effect on water quality for use with water at temperature up to 35°C.

Approved Signatory


LAU, Chi Leung
(Chief Chemist)



Test results :

1) Odour and flavour of water

There was no significant odour and flavour detected in the first dilution from the third 24 hour unchlorinated extract and in the undiluted liquor from the fourth 24 hour unchlorinated extract as assessed by the tester (for both extractions conducted at 23°C and 35°C).

2) Appearance of water (Extraction was conducted at 35°C)

Test Item	Sample Results	BS 6920 requirement, max
Increase in colour, mg/L Pt	<5	5
Increase in turbidity, FNU	<0.5	0.5

3) Growth of aquatic micro-organisms (Incubation was conducted at 30°C)

Test Item	Sample	Positive Control (Wax)	Negative Control (Glass)	Blank	BS 6920 Requirement
Initial D.O., mg/L	7.01	7.01	7.00	6.98	>6.0
Final D.O., mg/L	6.56	0.10	6.59	6.60	---
MDOD, mg/L	<0.10	6.53	<0.10	---	<1.69



4) The extraction of substances that may be of concern to public health

Significant irregular shaped cells and rounding off was not observed after incubation of the cell line at 37°C for 48 hours with one-fold dilution extracts (for both extractions conducted at 23°C and 35°C).

5) Extraction of metals and boron(Extraction was conducted at 35°C)

Metals	Sample results	BS 6920 requirements, max.
Aluminium (Al) µg/L	<20	200
Antimony (Sb) µg/L	<0.5	5
Arsenic (As) µg/L	<1	10
Boron (B) µg/L	<100	1000
Cadmium (Cd) µg/L	<0.5	5
Chromium (Cr) µg/L	<5	50
Iron (Fe) µg/L	<20	200
Lead (Pb) µg/L	<1	10
Manganese (Mn) µg/L	<5	50
Mercury (Hg) µg/L	<0.1	1
Nickel (Ni) µg/L	<2	20
Selenium (Se) µg/L	1	10

Conclusion

- Odour and flavour of water – Satisfactory.
- Appearance of water – Satisfactory.
- Growth of aquatic micro-organisms – Satisfactory.
- The extraction of substances that may be of concern to public health – Satisfactory.
- The extraction of metals – Satisfactory.
- The submitted sample was found to satisfy with the requirements of BS 6920 : Part 1 : 2014, Clause 4 to Clause 8 and Clause 9 (at 35°C) - tests to effect on water quality for use with water at temperature up to 35°C.

Our report no. AGA00014

