TEST REPORT

REPORT NO: AR23-010201-1

REPORT DATE: 23.03.2023

SUITABILITY OF NON-METALLIC PRODUCTS FOR USE IN CONTACT WITH WATER INTENDED FOR HUMAN CONSUMPTION WITH REGARD TO THEIR EFFECT ON THE QUALITY OF WATER

CLIENT: WEICON MIDDLE EAST L.L.C.

DUBAI, UAE

SAMPLE: WEICON CERAMIC HC220

SAMPLE NUMBER: AS23-010200

TEST DATE: 03.02.2023 ~ 22.03.2023

Report approved by

Reji Krishnan G

Head of Chemistry Department

Al Hoty Stanger Laboratories - Abu Dhabi

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SAMPLE DETAILS

Description of sample	:	Stainless steel plates 100x100x2mm made of V4A, coated both sides with 2-component epoxy.
General composition of product	:	2-component epoxy
Trade name and reference of material	:	WEICON CERAMIC HC220
Material manufacturer	:	WEICON GmbH & Co. KG
Submitting organization	:	WEICON Middle East LLC.
Component name/ref	:	Not Available
Component manufacturer	:	Not Available
Batch number of product	:	Not Available
Date of manufacture of product	:	Not Available
Method of manufacture of sample	:	The stainless steel plates were sandblasted with corundum F60, cleaned and then coated with 2-component epoxy and a brush.
Sampling procedure	:	Not Available
Surface area of test piece	:	20.000mm²
Date of application	:	18.11.2022
Date of receipt of test samples	:	31.01.2023
Condition of samples on receipt	:	Satisfactory
Method of packaging	:	Wrapped in aluminium foil
Conditions of storage of the samples between receipts	:	As per BS 6920 B
Proposed use of the product	:	Coatings in direct contact with drinking water

SITE APPLIED PRODUCTS

The samples were prepared in accordance with manufacturer's instructions to the user.

Samples prepared by	:	Not Available
Mode of preparation and application of the products	:	Not Available
Application conditions	:	Not Available
Curing conditions	:	Not Available

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ODOUR AND FLAVOUR OF WATER

Number of tasters in the taste panel : 3
Extraction temperature : 25°C
Date test commenced : 02.02.2023 ~ 03.02.2023

Extract 1

(i) Chlorine Free Test Water:

Taster	Odour	Flavour	Specification Limit
1	No Discernable	No Discernable	No Discernable
2	No Discernable	No Discernable	
3	No Discernable	No Discernable	

(ii) Chlorinated Test Water:

Taster	Odour	Flavour	Specification Limit
1	No Discernable	No Discernable	No Discernable
2	No Discernable	No Discernable	
3	No Discernable	No Discernable	

Comment - thus the samples of this product have been found to comply with the requirements of BS 6920: Part 1: clause 4 when extracted at 25°C.

APPEARANCE OF WATER

Extraction temperature : 25°C
Date test commenced : 02.02.2023 ~ 03.02.2023

Extract

	Colour (Hazen units)			Turbidity (Formazine nephelometric units)		
	Result	*MU[A]	Specification Limit	Result	*MU[A]	Specification Limit
Test container (products)	1	± 7.02 %	--	0.21	± 1.91%	--
Blank	0	± 7.02 %	--	0.13	± 1.91%	--
Net Increase	1	± 7.02 %	< 5	0.08	± 1.91%	< 0.5

Comment - thus the samples of these products have been found to comply with the requirements of BS 6920: Part 1: clause 5 when extracted at 25°C.

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GROWTH OF AQUATIC MICROORGANISMS

Date tests commenced : 02.02.2023 ~ 22.03.2023

Mean Dissolved Oxygen Difference (MDOD)		*MU[A]	Specification Limit
Test container (Products)	1.90 mg/l	± 5.08%	< 2.4
Negative reference (Glass) sample	0.23 mg/l	± 5.08%	0 ± 0.6
Positive reference (Wax) sample	7.31 mg/l	± 5.08%	7.5 ± 2.5
Mean dissolved oxygen concentration of the negative control	7.81 mg/l	± 5.08%	8.5 ±2.5

Note - At the end of this test the test pieces showed no changes in colour and appearance.

Comments - thus the samples of these products have been found to comply with the requirements of BS 6920: Part 1: clause 6.

THE EXTRACTION OF METALS

Extraction temperature : 25°C
Date test commenced : 06.02.2023
Number of extracts : 1

PRODUCT

a) Extract 1

Metal	Expression of the results	Max. admissible concentration	Concentration Final Extract I	Reagent Blank	*MU[A]
Aluminium	Al µg/L	200	< 20.0	< 20.0	± 8.31%
Antimony	Sb µg/L	5	< 1.0	< 0.5	± 3.86%
Arsenic	As µg/L	10	< 1.0	< 1.0	± 3.69%
Boron	B µg/L	1000	< 100.0	< 100.0	± 9.91%
Cadmium	Cd µg/L	5	< 1.0	< 0.5	± 6.17%
Chromium	Cr µg/L	50	< 5.0	< 5.0	± 6.24%
Iron	Fe µg/L	200	< 20.0	< 20.0	± 9.60%
Lead	Pb µg/L	25	< 1.0	< 1.0	± 6.96%
Manganese	Mn µg/L	50	< 5.0	< 5.0	± 7.73%
Mercury	Hg µg/L	1	< 1.0	< 0.1	± 3.71%
Nickel	Ni µg/L	20	< 2.0	< 2.0	± 7.33%
Selenium	Se µg/L	10	< 1.0	< 1.0	± 3.73%

Comment - thus the samples of these products have been found to comply with the requirements of BS 6920: Part 1: clause 8 when extracted at 25°C.

*MU-Measurement Uncertainity

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SUMMARY OF ANALYSIS

Test	Result
Odour and flavor of water	Pass
Appearance of water	Pass
Growth of aquatic microorganisms	Pass
Extraction Of metals	Pass

CONCLUSION

The samples of the products referred to in this report have been tested in accordance with the methods specified in BS 6920: Part 2: 2000 "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: "Methods of test" and the requirements of the Water Regulations Advisory Scheme.

Based on the above test, the sample is compliance with the requirement of BS 6920 Part 1:2000, the expanded measurement uncertainty of the results (Based on 95% coverage probability) was considered into account during the decision of compliance as QSP 21.

"AHSL Abu Dhabi (Musaffah, ICAD – 1, Plot 9R7B) is accredited by EIAC for the above tested parameters"

Reji Krishnan G
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For Al Hoty Stanger Laboratories

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