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Test Laboratory No. 1206
accredited to ČSN EN ISO/IEC 17025
by the Czech Accreditation Institute



Laboratory Test Report No. 1.1/18/42
Expertise No. 180630

Client Name	SCHOMBURG Čechy a Morava Ltd
Contact person	Ing. Jitka Tietjen
Address	Na Univerzitním statku 2, 108 00 Praha 10, Czech Republic
Company Registration Number (CRN)	49621688 tel +420 603 501 133

Product Trade name/designation	AQUAFIN-2K/M-PLUS
Manufacturer	SCHOMBURG GmbH & Co KG
Material specification	flexible mineral-based waterproofing slurry
Claimed use	in permanent contact with drinking water

Samples submitted by/ date	Samples received by/ date	Analysis begin date	Analysis end date
Doskočil/ 17 April 2018	Nešpůrková/ 17 April 2018	10 May 2018	1 June 2018

Sample Sample No.	1.1/18/42
Sampled by	client
Sample description	solidified product squares 10x10x0.3 cm

Designation of extracts

Extract 1	samples 1/72 I and 1/72 II	control samples 1/72 I and 1/72 II
Extract 2	samples 2/72 I and 2/72 II	control samples 2/72 I and 2/72 II
Extract 3	samples 3/72 I and 3/72 II	control samples 3/72 I and 3/72 II

Laboratory Statement

The results of these analyses relate only to the item tested, and this Test Report does not replace any other documents (e.g. of an administrative nature) that are specifically requested by the national professional supervisory authorities.

Report compiled by	Mgr. Filip Kothan	Page 1 of 5
Place and date of issue	Prague, 6 June 2018	No. of annexes 0

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LABORATORY TESTS RESULTS

Table I - Concentrations of migrated substances in extract I obtained after 72 hours, $T=23^{\circ}\text{C}$

Analysis	Unit	Sample 1/72 I	Sample 1/72 II	Control sample 1/72 I	Control sample 1/72 II	$C_{72,1}^*$	Uncertainty	LOD	LOQ	Limit value (type)	Method identification	Note
Ammonium ions	mg/l	0.17	0.19	<0.06	<0.06	0.18	$\pm 10\%$	0.06	0.11	0.50 (LV)	SOP 1/1.1 (ČSN ISO 7150-1)	A
Colour	mg/l Pt	<2	2<c<4	2<c<4	<2	<2		2	4	20 (LV)	SOP 2/1.1 (ČSN 7887)	A
Total Organic Carbon (TOC)	mg/l	<0.1	0.1<c<0.2	<0.1	<0.1	<0.1		0.1	0.2	5.0 (LV)	SOP 3/1.1 (ČSN EN 1484)	A
Nitrites	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01		0.01	0.02	0.50 (MLV)	SOP 5/1.1 (ČSN EN 26777)	A
Permanganate Chemical Oxygen Demand (COD _{Mn})	mg/l	0.42	0.16<c<0.25	<0.16	<0.16	0.32	$\pm 20\%$	0.16	0.25	3.0 (LV)	SOP 6/1.1 (ČSN EN ISO 8467)	A
Conductivity	mS/m	6.3	7.3	<0.4	<0.4	6.8	$\pm 20\%$	0.4	0.8	125 (LV)	SOP 8/1.1 (ČSN EN 27888)	A
pH		9.4	9.6	6.9	6.5	9.5	$\pm 10\%$			6.5-9.5 (LV)	SOP 10/1.1 (ČSN ISO 10523)	A
Turbidity	ZF _n	0.98	2.49	0.23	0.30	1.47	$\pm 25\%$	0.05	0.2	5 (LV)	SOP 15 (ČSN EN ISO 7027)	A
Lead	µg/l	<0.25	0.25<c<0.75	<0.25	<0.25	<0.25		0.25	0.75	10 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Cadmium	µg/l	<0.005	0.005<c<0.015	<0.005	<0.005	<0.005		0.005	0.015	5.0 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Chromium	µg/l	1.05	1.01	<0.3	<0.3	1.03	$\pm 15\%$	0.3	0.9	50 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Nickel	µg/l	<0.3	<0.3	<0.3	<0.3	<0.3		0.3	0.9	20 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Aluminium	mg/l	0.363	0.539	<0.001	0.001<c<0.003	0.451	$\pm 15\%$	0.001	0.003	0.2 (LV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A



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Table II- Concentrations of migrated substances in extract 2 obtained after 72 hours, $T=23^{\circ}\text{C}$

Analysis	Unit	Sample 1/72 I	Sample 1/72 II	Control sample 1/72 I	Control sample 1/72 II	$C_{T=21}$	Uncertainty	LOD	LOQ	Limit value (type)	Method identification	Note
Ammonium ions	mg/l	0.14	0.16	<0.06	<0.06	0.15	± 10 %	0.06	0.11	0.50 (LV)	SOP 1/1.1 (ČSN ISO 7150-1)	A
Colour	mg/l Pt	2<c<4	2<c<4	2<c<4	2<c<4	<2		2	4	20 (LV)	SOP 2/1.1 (ČSN 7887)	A
Total Organic Carbon (TOC)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1		0.1	0.2	5.0 (LV)	SOP 3/1.1 (ČSN EN 1484)	A
Nitrites	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01		0.01	0.02	0.50 (MLV)	SOP 5/1.1 (ČSN EN 26777)	A
Permanganate Chemical Oxygen Demand (COD _{Mn})	mg/l	0.35	0.42	<0.16	<0.16	0.39	± 20 %	0.16	0.25	3.0 (LV)	SOP 6/1.1 (ČSN EN ISO 8467)	A
Conductivity	mS/m	5.8	6.3	<0.4	<0.4	6.1	± 20 %	0.4	0.8	125 (LV)	SOP 8/1.1 (ČSN EN 27888)	A
pH		9.4	9.6	6.66	6.32	9.5	± 10 %			6.5-9.5 (LV)	SOP 10/1.1 (ČSN ISO 10523)	A
Turbidity	ZF _n	0.38	0.56	0.05<c<0.2	0.25	0.28	± 25 %	0.05	0.2	5 (LV)	SOP 15 (ČSN EN ISO 7027)	A
Lead	µg/l	<0.25	<0.25	<0.25	<0.25	<0.25		0.25	0.75	10 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Cadmium	µg/l	<0.005	<0.005	<0.005	<0.005	<0.005		0.005	0.015	5.0 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Chromium	µg/l	<0.3	<0.3	<0.3	<0.3	<0.3	± 15 %	0.3	0.9	50 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Nickel	µg/l	<0.3	<0.3	<0.3	<0.3	<0.3		0.3	0.9	20 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Aluminium	mg/l	0.310	0.312	0.001<c<0.003	0.001<c<0.003	0.311	± 15 %	0.001	0.003	0.2 (LV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A

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Table III- Concentrations of migrated substances in extract 3 obtained after 72 hours, T=23°C

Analysis	Unit	Sample 1/72 I	Sample 1/72 II	Control sample 1/72 I	Control sample 1/72 II	C ^{72,1}	Uncertainty	LOD	LOQ	Limit value (type)	Method identification	Note
Ammonium ions	mg/l	0.16	0.15	<0.06	<0.06	0.15	± 10 %	0.06	0.11	0.50 (LV)	SOP 1/1.1 (ČSN ISO 7150-1)	A
Colour	mg/l Pt	2<c<4	2<c<4	2<c<4	<2	3		2	4	20 (LV)	SOP 2/1.1 (ČSN 7887)	A
Total Organic Carbon (TOC)	mg/l	0.46	0.40	0.20	0.1<c<0.2	0.43	± 10 %	0.1	0.2	5.0 (LV)	SOP 3/1.1 (ČSN EN 1484)	A
Nitrites	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01		0.01	0.02	0.50 (MLV)	SOP 5/1.1 (ČSN EN 26777)	A
Permanganate Chemical Oxygen Demand (COD _{Mn})	mg/l	0.26	0.29	<0.16	<0.16	0.2	± 20 %	0.16	0.25	3.0 (LV)	SOP 6/1.1 (ČSN EN ISO 8467)	A
Taste	TFN	acceptable	acceptable	acceptable	acceptable	acceptable				acceptable (*)	SOP 11B/1.1 (ČSN EN 1622)	A
Conductivity	mS/m	5.3	5.3	<0.4	<0.4	5.3	± 20 %	0.4	0.8	125 (LV)	SOP 8/1.1 (ČSN EN 27888)	A
Odour	TON	1	1	1	1	1				2 (*)	SOP 11B/1.1 (ČSN EN 1622)	A
pH		8.9	8.9	6.7	6.5	8.9	± 10 %			6.5-9.5 (LV)	SOP 10/1.1 (ČSN ISO 10523)	A
Turbidity	ZF _n	0.44	0.60	0.32	0.28	0.22	± 25 %	0.05	0.2	5 (LV)	SOP 15 (ČSN EN ISO 7027)	A
Styrene	µg/l	<0.1	<0.1	<0.1	<0.1	<0.1		0.1	0.3	20 (*)	SOP 20/1.1	A
Lead	µg/l	<0.25	<0.25	<0.25	<0.25	<0.25		0.25	0.75	10 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Cadmium	µg/l	<0.005	<0.005	<0.005	<0.005	<0.005		0.005	0.015	5.0 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Chromium	µg/l	<0.3	<0.3	<0.3	<0.3	<0.3		0.3	0.9	50 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Nickel	µg/l	<0.3	<0.3	<0.3	<0.3	<0.3		0.3	0.9	20 (MLV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A
Aluminium	mg/l	0192	0.187	0.001<c<0.003	0.001<c<0.003	0.190	± 15 %	0.001	0.003	0.2 (LV)	SOP 2A/1.4 (ČSN EN ISO 15 586)	A

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Tables I-III summarize the concentrations of the migrated substances from three consecutive extracts into test water.

The final concentration $C_{t,n}^T$ is expressed as the mean value of the concentrations of the migrated substances determined in duplicate in the respective samples after deducting the mean value of the concentrations of the migrated substances in the respective control samples. If the result of the control determination is below the limit of detection of the test method ($< LOD$), the reading is "0", if the result is below the limit of quantification of the test method ($LOD < c < LOQ$), the reading is equal to " $(LOQ - LOD)/2$ ", and if the result is above or equal to LOQ , the reading is the measured value of the control determination.

$< LOD$... value below LOD ; $LOD < c < LOQ$... value above the limit of detection of the test method and, at the same time, below the limit of quantification of the test method

$C_{t,n}^T$... concentration of the migrated substance; T ... test water temperature; t ... extraction time in hours; n ... extract serial number

A ... accredited test, N ... non-accredited test, S ... subcontracted test;

The measurement uncertainty is expressed as expanded measurement uncertainty with a coverage factor $k = 2$ which gives a confidence level of 95% and does not include sampling uncertainty.

The limit is indicated in accordance with Ministerial Regulation No. 252/2004 as amended, laying down the health safety requirements for drinking and hot water and frequency and scope of drinking water testing. The indication of the limit values is beyond the scope of accreditation.

LV ... limit value, MLV ... maximum limit value, RV ... recommended value, * ... health safety limits for drinking water specified in Ministerial Regulation No. 409/2005.



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