

Certificate of test results

No. 401-413/4000868/2018/C

Date: 18 December 2018

Name of the client: Metsä Tissue
 Address of the client: Tehtaankatu 16, P.O Box 300
 35800 Mänttä, Finland
 Contact person(s): tuomo.kotilainen@metsagroup.com

Tissue paper products

SGS Ref. No. / Application No. : 401-413/4000868
 Tested samples # : Recycled bl ws napkin white 15,5 g, BP353
 Pure bl ws hato white 21 g, BP340
 Pure bl napkin white 21 g, BP341
 Pure bl napkin white 19 g, BP493
 Pure bl napkin champagne 15,5 g, BP570
 Testing Period : 14 November to 7 December 20118
 Test report(s) : No. 401-413/4000868/2018/TR dd. 14 December 2018

Remark: Based on worst case scenario 5 samples was selected for tests from following 13 samples that were submitted by the client: Pure bl napkin white 16 g, BP331; Pure bl napkin white 15 g, BP335; Recycled bl ws napkin white 15,5 g, BP353; Pure bl napkin white 17 g, BP339; Pure bl ws hato white 21 g, BP340; Pure bl napkin white 21 g, BP341; Pure bl napkin white 17 g, BP456; Pure bl napkin white 17 g, BP490; Pure bl napkin white 18 g, BP491; Pure bl napkin white 16,5 g, BP492; Pure bl napkin white 19 g, BP493; Pure bl napkin white 17 g, BP495 and Pure bl napkin champagne 15,5 g, BP570.

The tested samples meet the general requirements of the Regulation (EC) No. 1935/2004, BfR XXXVI and DGCCRF in all the tested parameters.

The following tests were performed in SGS Germany and France laboratories

Tests requested	Test method / Reference	Reference limit / Permissible limit	Comment(s)
Determination of 3-Monochloro-1,2-propanediol (MCPD) and 1,3-dichloro-2-propanol (DCP)	ASU B 80.56-2 2002-09, determination of consumer product to MCPD and DCP in water extracts BfR XXXVI (Paper and Board for Food Contact)	MCPD: max 12 µg/l DCP: < 2 µg/l	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Sensory test for dry food (sensorial examination of odour and taste)	DIN EN 1230-1/2:2010-02 DIN 10955:2004-06	Assessment from 0 to 2.5 (tolerable organoleptic impact)	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Determination of formaldehyde	Water migrate prepared according to EN 645 followed by HPLC-UV analysis BfR XXXVI (Paper and Board for Food Contact)	1 mg/dm ²	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Determination of glyoxal	Water migrate prepared according to EN 645 followed by HPLC-UV analysis BfR XXXVI (Paper and Board for Food Contact)	1.5 mg/dm ²	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Determination of primary aromatic amines	Water migrate prepared according to EN 645 followed by LC-MS/MS analysis BfR XXXVI (Paper and Board for Food Contact).	Not detectable or < 2 µg/l	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Release of optical brighteners	EN 648 using different food simulants (water, 3 % acetic acid, saliva solution, oil)	No migration (a value of 5 on the evaluation scale must be reached)	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018

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Date: 18 December 2018

Tests requested	Test method / Reference	Reference limit / Permissible limit	Comment(s)
Colour resistance / Release of colourants	EN 646 using different food simulants (water, 3 % acetic acid, saliva solution, oil)	No release of colourant (a value of 5 on the so-called grey scale must be reached)	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Agar diffusion test (Transfer of antimicrobial constituents)	With reference to DIN EN 1104	No inhibition zone may be observed	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Extractable heavy metals (lead, cadmium, chromium)	Water migrate according to EN 645 followed by ICP-MS analysis with reference to EN ISO 17294-2. BfR XXXVI (Paper and Board for Food Contact).	(BfR) Lead: 10 µg/l Cadmium: 5 µg/l CrIII: 0.004 mg/dm ² (not detectable Chromium (VI)) (DGCCRF) Lead: 3 mg/kg Cadmium: 0.5 mg/kg CrVI: 0.25 mg/kg	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Determination of pentachlorophenol (PCP)	With reference to DIN EN ISO 15320	Max. 0.15 mg/kg as specified in CoE Res AP(2002)1 0.1 mg/kg (DGCCRF)	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Polychlorinated Biphenyls (PCB)	With reference to SGS In-house method	Sum. max 2 mg/kg	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Extractable heavy metals (mercury)	Water migrate according to EN 647 followed by ICP-MS analysis with reference to EN ISO 17294-2.	Mercury: 0.3 mg/kg	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Specific migration of bisphenol A	Extraction with acetonitrile. LC-MS/MS analysis	max. 2 mg/kg	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018
Robinson test / organoleptic inertia	With reference to O.I.C.C and EN1230-2	< 2	Pass refer to report no. 401-413/4000868/2018/TR dd. 14 December 2018

Signed for and on behalf of
SGS FINLAND OY

Miia Nieminen
Specialist

***** End of Certificate *****

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