



**MATERIALS AND ARTICLES IN CONTACT WITH FOODSTUFFS**

Test report № KL2019/PM1459M



Order placed by: Plastrex Europe OÜ Harju maakond, Tallinn, Mustamäe linnaosa, Laki tn 32  
Sampled by: Jüri Kambura  
Manufacturer/Importer: Plastrex Europe OÜ/  
Article: 100% recycled plastic  
Material: 100% recycled plastic (PP;PS)  
Lot №: -  
Specification document: -  
In contact with: Some foodstuffs: drinking water  
Contact conditions: pH: under 4.5; contact temperature: <20°C, duration: unlimited, repeated use  
Date of sampling: 22.03.2019 Analysis started: 25.03.2019  
Date of arrival to laboratory: 22.03.2019 Analysis ended: 17.05.2019  
Sampling protocol nr.: - Test report issued: 17.05.2019

Responsible for quality: leading specialist K.Kislitsõn

**The test results relate only to the items tested. The test report shall not be reproduced except in full, without written approval of the laboratory.**

**\* The test method is not accredited.**

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Parameter:	Unit	Test result	Limit	Test method
Testing for overall migration:				
food simulant - distilled water	mg/dm <sup>2</sup>	7.1	10	EVS-EN 1186-3:2002
Migration of heavy metals:				
Aluminium Al	mg/kg	0.1	1.0	ICP-MS*
Barium Ba	mg/kg	0.01	1.0	ICP-MS*
Cobalt Co	mg/kg	0.0002	0.05	ICP-MS*
Manganese Mn	mg/kg	0.005	0.6	ICP-MS*
Nickel Ni	mg/kg	0.002	0.02	ICP-MS*
Iron Fe	mg/kg	0.02	48	ICP-MS*
Zinc Zn	mg/kg	0.02	5.0	ICP-MS*
Copper Cu	mg/kg	0.003	5.0	ICP-MS*
Photoinitiators:				
Benzophenone	mg/kg	Not detected	Sum	MT27*
4-methylbenzophenone	mg/kg	Not detected	less than	MT27*
4-hydroxybenzophenone	mg/kg	Not detected	0.6	MT27*
4-benzoylbiphenyl	mg/kg	Not detected	-	MT27*
2-isopropylthioxanthone	mg/kg	Not detected	-	MT27*

Selection of the test conditions, preparation of test specimens and requirements are in accordance with the Regulation (EU) No 10/2011 (amended by (EU) 2016/1416 and (EU) 2017/752) and with standard EVS-EN 1186-1:2002.

Overall migration and heavy metals migration test is conducted by total immersion: distilled water: 3 x 10 days at 20°C.

Tested surface area is approximately 0.9 dm<sup>2</sup>. Volume of food simulant is 100 ml.

Test results meet the requirements of following usage conditions: any food contact at frozen and refrigerated conditions.

For photoinitiators the test conditions, preparation of test specimens and requirements are in accordance with the standards EVS-EN 645:2000 and EVS-EN 12498-2005.

Methodology of determination of photoinitiators was developed on the basis of European Union Reference Laboratory standard operating procedures "Photoinitiators in solvents" and "Photoinitiators from paper board".

Limits of photoinitiators are taken from European Commission resolution ResAP (2002) "Paper and board materials and articles intended to come into contact with foodstuffs", IV version.

Determination of photoinitiators was carried out by high performance liquid chromatography coupled with diode array detector (HPLC- DAD).

Extraction of photoinitiators was carried out with acetonitrile at 70°C for 24 hours.

"Not detected" is below the detection limit of the method. Limit of detection is 0.01 mg/kg and limit of quantification is 0.06 mg/kg.

Measurement uncertainty depending on the substance is 17-26%. Measurement uncertainty was included in the calculation of the results.

Tested contact area 0.25 dm<sup>2</sup>. The volume of food simulant was 20 ml for photoinitiators.

Responsible for quality: leading specialist K.Kislitsõn

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