



Accredited by the Estonian Accreditation Centre in the field of water, air, materials
and foodstuffs analyses. Registration number L042

MATERIALS AND ARTICLES IN CONTACT WITH FOODSTUFFS
Test report nr KL2014/PM744M



Order placed by: Krah Pipes OÜ
Address: Gaasi tee 11, Lehmja küla, Harjumaa, 75306, Estonia
Sampled by: Toomas Uustalu
Manufacturer/ Importer: Borealis
Article: Water pipe segments
Tested material: PE-100 HDPE Borealis HE-3490LS
Lot № Raw material: Batch 5140284
Specification document: Raw material: Nr. 5018 (Instra-Cert)
In contact with: drinking water
Contact conditions: pH>4.5; contact temperature 20°C, duration: permanent
Date of sampling: 13.08.2014 Analysis started: 15.08.2014
Date of arrival to laboratory: 13.08.2014 Analysis ended: 29.08.2014
Date of issue: **03.09.2014**

Analysis done by: leading specialist K.Kärner, senior specialists A. Umbleja, A.Mähar
Responsible for quality: leading specialist I. Honga



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
Lead Pb	mg/kg	<0.5	Sum with	ISO 6101-2:1997*
Cadmium Cd	mg/kg	< 4	Cr and Hg <100	ISO 6101-2:1997*
Phenols:			Sum <1	
Phenol	µg/l	Not detected		V-88
o-Kresol	µg/l	Not detected		V-88
m-Kresol	µg/l	Not detected		V-88
2,3-Dimethylphenol	µg/l	Not detected		V-88
2,6-Dimethylphenol	µg/l	Not detected		V-88
3,4-Dimethylphenol	µg/l	Not detected		V-88
2,4-Dimethylphenol	µg/l	Not detected		V-88
2,5-Dimethylphenol	µg/l	Not detected		V-88
3,5-Dimethylphenol	µg/l	Not detected		V-88
Hydroquinone	µg/l	Not detected		V-88
Resorcinol	µg/l	Not detected		V-88
Pyrocatechol	µg/l	Not detected		V-88
5-Methylresorcinol	µg/l	Not detected		V-88
2,5-Dimethylresorcinol	µg/l	Not detected		V-88
β-Naphthol	µg/l	Not detected		V-88

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

“Not detected” is below the detection limit of the method. Detection limit for phenols in drinking water is 0.25 µg/l.

Test method HPLC-DAD.

Analysis was conducted by total immersion of sample into simulant with contact conditions: distilled water : 3 times 72 hours at 23°C.

Ten specially made specimens with measures 100x100 mm were used for analysis. Simulant volume: 2000 ml.

The yield of monobasic and dibasic phenols for drinking water analysis is 97.6%.

The expanded measurement uncertainty of monobasic phenols is 8.5 µg/l and of dibasic phenols is 20.1 µg/l for drinking water analysis.

The limit of heavy metals: Package act (Pakendiseadus), published note RT I, 04.04.2012, 6

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