

Folding Wing

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Migration Report

19 August 2016

1 Sample Information

Sample name	Foldelapper
Sample reception	27/07/2016
Sample no.	392-2016-00291101
Analysis start	02/08/2016
Analysis end	19/08/2016

2 Brief Evaluation of the Results

Type of analysis	Conclusion	Regulation or protocol
Specific migration	Pass	EU 10/2011/EC
Content analysis	Pass	EU 10/2011/EC

Full details based on the testing and direct comparison with limit values is available in the following pages

Eurofins Product Testing A/S



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MSc. Chemistry

*: Not accredited

<: Less than

>: Greater than

LOD: Limit of detection

Um(%): The expanded uncertainty Um(%) equals 2 x RSD%. For further information please visit www.eurofins.dk/uncertainty

The results are only valid for the tested sample(s).

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3 Applied Test Methods

3.1 General Test References

Method	Parameter	Analysis principle	LOD	Um(%)
EN 13130-4*	1,3-butadiene	HS-GC-MS	0.1 mg/kg	20%
EN 1186-2:2002	Preparation for migration	Exposure to olive oil by total immersion	-	-
EN 13130*	Atmer 163	GC-MS	0.2 mg/kg	30%
EN 13130-15*	1,3-butadiene	HS-GC-MS	0.01 mg/kg	20%
EN 1186-14:2002	Preparation for migration	Exposure to isooctane by total immersion	-	-
EN 13130*	Dibutylphthalate	GC-MS	0.3 mg/kg	20%
EN 13130 \square	Irganox PS800	LC-MS/MS	0.1 mg/kg	20%
EN 1186-3:2002	Preparation for migration	Exposure to 3% acetic acid by total immersion	-	-
EPA 3052m* $\square\square$	Metals	ICP-MS	0.0005 – 0.03 mg/kg	30%

3.2 Test Conditions

Simulant	Technique	Area exposed	Volume (Simulant)	Migration Conditions
		[dm ²]	[mL]	
Olive oil	Immersion	1.89	100	30 min. at 20°C
Isooctane	Immersion	1.89	100	5 min. at 20°C
3% acetic acid	Immersion	1.89	100	30 min. at 20°C

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4 Results

4.1 Specific Migration

Parameter	CAS No.	Food Simulant	Average [mg/kg]	SML value [mg/kg]
Aluminium*	7429-90-5	3% acetic acid	0.05	1 [#]
Barium*	7440-39-3	3% acetic acid	0.04	1
Cobalt*	7440-50-8	3% acetic acid	< 0.0005	0.05
Iron*	7439-89-6	3% acetic acid	< 0.05	48
Copper*	7440-50-8	3% acetic acid	0.001	5
Lithium*	7439-93-2	3% acetic acid	0.009	0.6
Manganese*	7439-96-5	3% acetic acid	< 0.01	0.6
Zinc*	7440-66-6	3% acetic acid	0.03	5 [#]
Irganox PS800 (18.9 dm ² pr. kg food)	123-28-4	Isooctane	5.5	5
Irganox PS800 (6 dm ² pr. kg food) ^{##}	123-28-4	Isooctane	1.7	5
Dibutylphthalate*	84-74-2	Isooctane	< 0.3	0.3
Atmer *	PM ref 39090	Olive oil	< 0.2	1.2
1,3-butadiene*	106-99-0	Olive oil	< 0.01	0.01

From draft amendment to EU 10/2011/EC of April 24th, 2015.

Cube assumption from EU 10/2011/EC that 1 kg of food is in contact with 6 dm² of food contact material.

4.2 Content Analysis

Parameter	CAS No.	Results [mg/kg]	QM value [mg/kg]
1,3-butadiene	106-99-0	< 0.1	1

5 Summary and Evaluation of the Results

The results for residual content of 1,3-butadiene were **below** the QM value.

The results for specific migration are below the specific migration limit, hence the product tested **complies** with the requirements in EU regulation No 10/2011/EC as amended by regulation No. 321/2011/EC, 1282/2011/EC, 1183/2012/EC, 202/2014/EC and 2015/174/EC on plastic material and articles intended to come into contact with food for the above mentioned test conditions **when the cube assumption is applied**.

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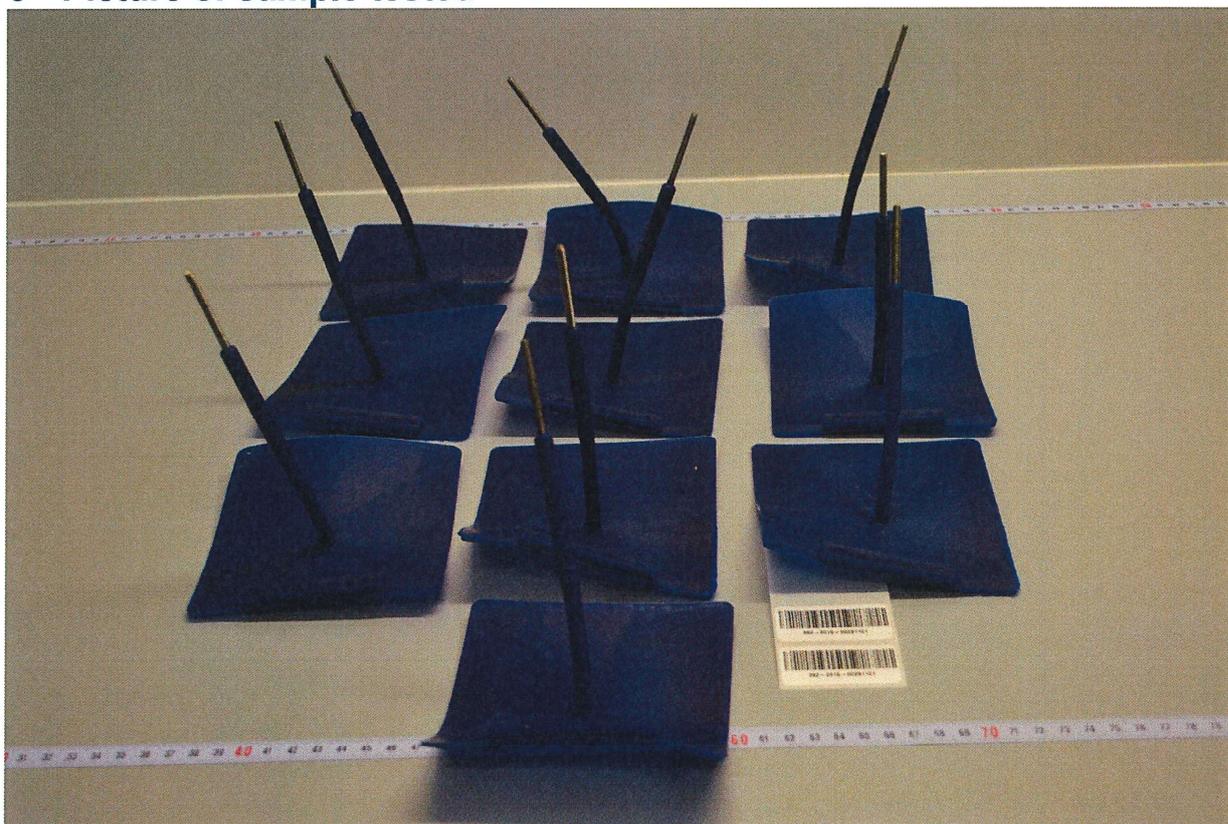
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6 Picture of sample tested



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