

LOTTE CHEMICAL CORPORATION
115, Gajeongbuk-ro, Yuseong-gu, Daejeon
Korea

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Consumer and Retail
Non Food

Taunusstein, 08/05/2020

Test-report no. 4782145
Test-report version < 1 >

Original Sample ID	Sample Description	Sample Receipt Date
200256416	EVA VA800	06/03/2020

General Information

SGS-Client's ID	: 10008109
SGS-Customer-Order	: 5304361
Ordering date	: 02/03/2020
Testing period	: 10/03/2020 – 06/04/2020 + 20/04/2020 – 05/05/2020
Order No.	: AYAR20-00503
Testing scope	: Test according to client's requirements

Assessment

Overall assessment	pass
The tested sample meetd the requirements of LFGB and Regulation (EC) No. 1935/2004 in the tested items.	

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This test report was electronically created and released:

	date	name	function	department
created	07.05.2020	i.A. Fabienne Kross	Customer Service Assistant	Consumer and Retail Non Food
released	08.05.2020	i.A. Jana Sturm	Customer Service Consultant	Consumer and Retail Non Food

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Summary of results

Test	Result
sensory test	pass
overall migration	pass
Specific migration of metals according to Regulation (EU) No 10/2011	pass
Specific migration of acetic acid, vinyl ester (Ref. No: 38560, CAS No: 108-05-4)	pass

Note:

Conclusions on pass/fail are based on the test result from the actual sampling of the received sample(s).
Conclusions are based on the relevant requirements; measurement uncertainties are not taken into account. Only results above the relevant detection limit are taken into account for the calculation of sums.
Test was conducted on composite of random parts of the item as per client's request and the test result is the overall result.
The composite sampling method is based on the client's special request and could be a modification from the testing standard.
For 2-composite mix with results exceeding one half of the relevant requirements or 3-composite mix with results exceeding one third of the relevant requirements, the composite sample may have the possibility of one or more components that can lead to a failure result, it is recommended to test on individual basis.

Photo documentation



List of sample parts

Comp. no	Component-ID	Sample-Description	Original Sample ID
1	-	EVA VA800	200256416

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Analytical results

sensory test

Test Method

DIN 10955 2004-06^[2]

simulant	water
duration	10 days
temperature	40 +/- 2°C
approach	6 dm ² /L

<u>Sample(s) /Subsample(s)</u>	<u>Unit</u>	<u>Result</u>
		1
		1st contact
Median Odour ^[1]		0.5
Median Taste ^[1]		2.0
Conclusion		Pass

Note:

Key:

0	=	no change
1	=	very slight off odour / off-taste
2	=	slight off- odour / off-taste
3	=	distinct off- odour / off-taste
4	=	strong off-odour/ off-taste

Requirement: With an assessment from 0 to 2.5 there is no, respectively a tolerable organoleptic impact existent in terms of Regulation (EC) No 1935/2004.

^[1] Median rounded at 0.5 grades

^[2] deviant amount of assessors

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overall migration

Test Method

DIN EN 1186 2002-07

simulant 10% ethanol
duration 10 days
temperature 40 +/- 2°C
approach 6 dm²/L

<u>Sample(s) /Subsample(s)</u>	<u>Unit</u>	<u>Result</u>
		1
overall migration	mg/dm²	1st contact < 1
Conclusion		Pass

Test Method

DIN EN 1186 2002-07

simulant 3% acetic acid
duration 10 days
temperature 40 +/- 2°C
approach 6 dm²/L

<u>Sample(s) /Subsample(s)</u>	<u>Unit</u>	<u>Result</u>
		1
overall migration	mg/dm²	1st contact < 1
Conclusion		Pass

Note:

Requirement: max. 10 mg/dm² (Regulation (EU) No 10/2011)

analytical tolerance of the method (§ 64 LFGB B 80.30-3 (EG)):
2 mg/dm² for aqueous simulants
3 mg/dm² for olive oil and fat substitutes

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Specific migration of metals according to Regulation (EU) No 10/2011

Test Method

DIN EN ISO 11885 2009-09, after migration DIN 13130-1

simulant 3% acetic acid
duration 10 days
temperature 40 +/- 2°C
approach 6 dm²/L

<u>Sample(s) /Subsample(s)</u>	<u>Unit</u>	<u>Result</u> 1
		1st contact
Aluminium (Al)	mg/kg	< 0.1
Barium (Ba)	mg/kg	< 0.1
Cobalt (Co)	mg/kg	< 0.01
Iron (Fe)	mg/kg	< 1.0
Copper (Cu)	mg/kg	< 0.5
Lithium (Li)	mg/kg	< 0.1
Manganese (Mn)	mg/kg	< 0.1
Nickel (Ni)	mg/kg	< 0.01
Zinc (Zn)	mg/kg	< 1.0
Conclusion		Pass

Note:

Requirement:	Regulation (EU) No 10/2011		
	Aluminium	max. 1 mg/kg food simulant	
	Barium:	max 1 mg/kg food simulant	
	Cobalt:	max. 0.05 mg/kg food simulant	
	Copper:	max. 5 mg/kg food simulant	
	Iron:	max. 48 mg/kg food simulant	
	Lithium:	max. 0.6 mg/kg food simulant	
	Manganese:	max .0.6 mg/kg food simulant	
	Nickel:	max. 0,02 mg/kg food simulant	
	Zinc:	max. 5 mg/kg food simulant	

Specific migration of acetic acid, vinyl ester (Ref. No: 38560, CAS No: 108-05-4)

Test Method

SOP M 3372 HS-SPME-GC-MS, 02.05.2016

simulant 3% acetic acid
duration 10 days
temperature 40 +/- 2°C
approach 6 dm²/L

<u>Sample(s) /Subsample(s)</u>	<u>Unit</u>	<u>Result</u> 1
		1st contact
acetic acid, vinyl ester (108-05-4)	mg/kg	7.5
Conclusion		Pass

Note:

Requirement: max. 12 mg/kg food simulant (Regulation (EU) No 10/2011)

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*** End of test report ***

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