

Test Report

Number: SZHH01282146

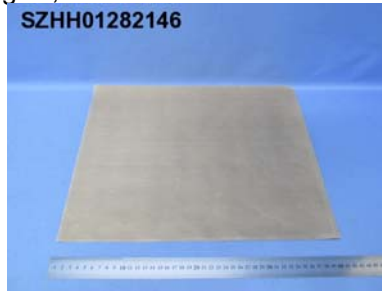
Applicant: KOOPMAN INTERNATIONAL B.V
DISTELWEG 88 AMSTERDAM, THE
NETHERLANDS

Date: Aug 22, 2018

Attn: QUALITY CONTROL

Sample Description:

One (1) group of submitted sample said to be :
Item Name : **Baking Mat.**
Item No. : **CY5270900.**
Material : Non-stick Coating (PTFE).
Date Sample Received : Aug 06, 2018.



Tests conducted:

As requested by the applicant, refer to attached page(s) for details.

To be continued

Authorized by:
For Intertek Testing Services
Shenzhen Ltd.

Ben N.L. Lin
General Manager

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Conclusion:

<u>Tested Sample</u>	<u>Client's requirement on</u>	<u>Result</u>
Tested component of submitted sample	---Sensory test	Pass
	---Overall migration	Pass
	---Specific migration of heavy metal	Pass
	---Specific migration of Primary Aromatic Amines	Pass
	---Specific migration of Formaldehyde	Pass
	---Specific migration of phthalate	Pass
	---GC screening on phenolic compounds	Pass
	---Short Chain Chlorinated Paraffins (C10-C13) (SCCP) content	Pass
	---Fluorine migration	Pass
	---PEOS & PFOA migration	Pass
	---Dimethyl fumarate (DMFu) content	Pass
---Phthalate content	Pass	

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General Manager



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Tests Conducted

1 Sensory Evaluation

With reference to DIN 10955:2004.

Test Procedure:

Sample was cleaned according to the product's instruction manual or in the absence of such manual, with water. Food simulant was filled in the sample under below mentioned time and temperature. Odour and off-flavour was evaluated with 6 panelists using control sample of food simulant.

I. Test condition: water 100°C 4hours

II. Result:

Test Item	Result	Limit
	(1)	
Intensity of odour	0	2.5
Intensity of off- flavour	0	2.5

Intensity Scale: 0 = No discernible deviation
 1 = Barely discernible deviation
 2 = Weak deviation
 3 = Clear deviation
 4 = Strong deviation

Tested component: (1) Transparent non-stick coating with mat.



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2 Overall Migration Test

With reference to Commission Regulation (EU) No. 10/2011 and its amendments.

I. Test condition:

Tested component	Food simulant	Temperature (°C)	Time(hours)
(1)	3% (w/v) acetic acid	100	4
	10% (v/v) ethanol	100	4
	95%(v/v) ethanol	60	7
	Iso –octane	60	3

II. Test Results :

Food Simulant	Result(mg/dm ²) (1)	Reporting Limit (mg/dm ²)	Limit (mg/dm ²)
10% (v/v) Ethanol	ND	1	10
3% (w/v) Acetic acid	1	1	10
95%(v/v) Ethanol	ND	1	10
Iso –octane	ND	1	10

ND = Not detected

Tested component: (1) Transparent non-stick coating with mat.

Remark: Ratio of food contact surface area to volume used to establish the compliance of material or article = 1 dm²: 100mL.

3 Specific Migration of Primary Aromatic Amines

As per Commission Regulation (EU) No. 10/2011 and JRC Technical Guidelines EN24815 EN2011.

I. Test condition :

<u>Food Simulant</u>	<u>Time</u>	<u>Temperature</u>
3% (w/v) Acetic acid	4hours	100°C

II. Test result :

<u>Food Simulant</u>	<u>Result</u> (1)	<u>Limit</u>
3% (w/v) Acetic acid	Not detected	Not detected

Remark : Detection limit = 0.01 mg/kg

Ratio of food contact surface area to volume used for the testing : 1dm²:100ml

Tested component: (1) Transparent non-stick coating with mat.



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4 Specific Migration of Formaldehyde

As per Commission Regulation (EU) No. 10/2011 and JRC Technical Guidelines EUR 24815 EN 2011 by total immersion.

I. Test condition :

<u>Tested component</u>	<u>Food simulant</u>	<u>Time (hour)</u>	<u>Temperature(°C)</u>
(1)	3% (w/v) Acetic acid	4	100

II. Test result :

<u>Food simulant</u>	<u>Result(mg/kg)</u>	<u>Reporting Limit (mg/kg)</u>	<u>Limit (mg/kg)</u>
	(1)		
3% (w/v) Acetic acid	ND	5	15

ND = Not detected(less than reporting limit)

Remark: Ratio of food contact surface area to volume used for the testing : 1dm²:100ml

Tested component: (1) Transparent non-stick coating with mat.



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5 Phenolic Compounds Screening

By Gas Chromatography-Mass Spectrometric (GC-MS) analysis.

I. Test condition:

Food simulant	Temperature(°C)	Time (hours)
95%(v/v) ethanol	60	7

II. Result :

Tested Component (1)	Hazardous Chemicals Absent

Limit: No phenolic compounds detectable

Tested Component : (1) Transparent non-stick coating with mat.

Fluorine Content Tests for Non-Stick Coating

By Ion-selective Electrode analysis.

I. Test condition:

Food simulant	Temperature(°C)	Time (hours)
Distilled water	100	4

II. Result:

Test Item	Result (mg/L)	Limit (mg/L)
Extractable fluorine content	(1) <1	10

Tested Component: (1) Transparent non-stick coating with mat.

6 Specific Migration of PFOS and PFOA

Test method: Liquid Chromatographic – Mass Spectrometric (LC/MS) analysis.

Test simulant : 3% acetic acid Test condition : 100°C 4hours

Test Item	Result	Reporting Limit	Limit
	Tested component		
	(1)		
Perfluorooctane Sulfonates (PFOS)	ND	0.005 mg/dm ²	ND
Perfluorooctanoic Acid (PFOA)	ND	0.005 mg/dm ²	ND

ND = Not detected

Tested component: (1) Transparent non-stick coating with mat.



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7 Specific Migration of Heavy Metal

As per Commission Regulation (EU) No. 10/2011 and its amendments

I. Test condition:

Temperature: 100°C

Time : 4hours

II. Test result :

Food simulant	Element	Result (mg/kg)	Reporting limit (mg/kg)	Limit (mg/kg)
		(1)		
3% (w/v) Acetic acid in aqueous solution	Barium	ND	0.1	1 (max.)
	Cobalt	ND	0.03	0.05 (max.)
	Copper	ND	1	5 (max.)
	Iron	ND	5	48 (max.)
	Lithium	ND	0.1	0.6 (max.)
	Manganese	ND	0.1	0.6 (max.)
	Zinc	ND	1	25 (max.)

ND = Not detected(less than reporting limit)

Tested component: (1) Transparent non-stick coating with mat.

8 Phthalate Content

By solvent extraction and followed by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

Phthalate	CAS No.	Result (%)	Reporting Limit (%)	Limit (%)
		(1)		
Dibutyl phthalate (DBP)	84-74-2	ND	0.01	0.05
Di-(2-ethyl hexyl) phthalate (DEHP)	117-81-7	ND	0.01	0.1
Benzyl butyl phthalate (BBP)	85-68-7	ND	0.01	0.1
Di-isononyl phthalate (DINP)	28553-12-0/ 68515-48-0	ND	0.01	0.1
Di-isodecyl phthalate (DIDP)	26761-40-0/ 68515-49-1	ND	0.01	0.1

ND = Not detected (less than reporting limit)

Tested component: (1) Transparent non-stick coating with mat.



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9 Specific Migration of Phthalate Content Test

As per Commission Regulation (EU) No. 10/2011, and its amendment.

I. Test condition:

<u>Food simulant</u>	<u>Time</u>	<u>Temperature</u>
Substitute simulant 95%(v/v) ethanol	7hours	60°C

II. Test result :

<u>Phthalate</u>	<u>Result (mg/kg)</u>	<u>Limit (mg/kg)</u>
	(1)	
Butyl benzy phthalate (BBP)	<1	30
Bis (2-ethylhexyl) phthalate (DEHP)	<1	1.5
Dibutyl phthalate (DBP)	<0.2	0.3
Di-(iso-nonyl) Phthalate (DINP) + Di-(iso-decyl) phthalate (DIDP)	<1	9
Diallyl phthalate (DAP)	Not detected	Not detected

Remark: Detection limit of DAP = 0.01 mg/kg

Tested component: (1) Transparent non-stick coating with mat.

10 Short Chain Chlorinated Paraffins (C10 - C13) (SCCP) Content

With reference to ISO 18219:2012, determined by Gas Chromatography-Mass Spectrometry (GC-MS).

<u>Tested component</u>	<u>Result (mg/kg)</u>	<u>Reporting limit (mg/kg)</u>	<u>Limit (mg/kg)</u>
(1)	ND	100	1500

ND = Not detected

Tested component: (1) Transparent non-stick coating with mat.



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11 Dimethyl Fumarate (DMFu) Content

With reference to ISO/TS16186:2012, solvent extraction method was used and DMFu content was determined by Gas Chromatography- Mass Spectrometry (GC-MS).

Test item	CAS No	Result (mg/kg)	Reporting limit (mg/kg)	Limit (mg/kg)
		Tested component		
Dimethyl Fumarate (DMFu)	624-49-7	(1)	0.05	0.1
		ND		

ND = Not detected (less than reporting limit)

Tested Component: (1) Transparent non-stick coating with mat.

End of report

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