

Test Report No. 5803411

Date : 14-Feb-2024

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Client : Prepack Thailand Co., Ltd.
1/1 Moo.4, Tambon Bangchang,
Amphoe Amphawa, Samutsongkram 75110 Thailand

The following sample(s) was/were submitted and identified by client as:

Sample Name : PET/LLDPE (A)
Sample Description : Plastic bag
Manufacturer/Vendor : PREPACK THAILAND CO.,LTD.
Country of Origin : Thailand

The following sample(s) was/were identified by SGS as:

SGS Sample No. : 6088606
Sample Condition : Sample is contained in a plastic bag.
Quantity Submitted : 1 pack
Sample Receiving Date : 25-Jan-2024
Testing Period : 25-Jan-2024 to 14-Feb-2024

Test Method & Results : Please refer to next page(s).

Signed for and on behalf of

SGS (Thailand) Ltd.



Rutchuporn Moungsom

Laboratory manager - Toy and Hard goods



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Test Requested & Result Summary

Test Requested : Please refer to the result summary (Test parameter(s) was/were selected by client).

Result Summary:

Test Requested	Conclusion
Notification of the Ministry of Public Health (No.435) B.E. 2565 (2022) (List no.1) : Qualities or standard for container made from plastic;	
a) Overall migration	
3% Acetic Acid (W/V)	PASS
10% Ethanol (V/V)	PASS
20% Ethanol (V/V)	PASS
Rectified Olive Oil	PASS
MPPO for dry food	PASS
b) Specific Migration of Heavy Metal	PASS
c) clause 4(5) Visible Color Migration	PASS

Remark:

1. Test results in this report are applicable for the item tested and reflects the tested sample as received.
2. The decision rules based on simple acceptance which the probability of false accept may be as high as 50% in case the results is exactly on the tolerance limit.

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TEST RESULTS

Notification of the Ministry of Public Health (No.435) B.E. 2565 (2022) (List no.1) : Qualities or standard for container made from plastic;

a) Overall migration limits

Method : With reference to Commission Regulation (EU) No 10/2011 of 14 January 2011 Annex III and Annex V for selection of condition and EN 1186-1:2002 for selection of test method (1st migration);
EN 1186-2:2022 Test methods for overall migration in vegetable oils
EN 1186-3:2022 Test methods for overall migration in evaporable simulants
EN1186-13 :2002 Method B - adsorption by modified polyphenylene oxide.

Simulant Used	Test Condition	Result (1) (mg/dm ²)	Reporting Limit (mg/dm ²)	Permissible Limit (mg/dm ²)
3% Acetic Acid (W/V)	10 days at 40 Degree C	ND	3.0	10
10% Ethanol (V/V)	10 days at 40 Degree C	ND	3.0	10
20% Ethanol (V/V)	10 days at 40 Degree C	ND	3.0	10
Rectified Olive Oil***	10 days at 40 Degree C	ND	3.0	10
Poly (2,6-diphenyl-p-phenylene oxide) (MPPO)	10 days at 40 degree C	ND	3.0	10
Comment	--	PASS	--	--

Sample Description :

(1) Clear plastic bag with multicolor printed (inside)

Note :

1. mg/dm² = milligram per square decimeter
2. Degree C = degree Celsius
3. ND = Not Detected

Remark :

1. Test condition & simulant were specified by client.
2. The ratio of surface area to volume is 1 dm² per 4 g of MPPO in contact with.
3. The ratio of surface area to volume is 20 dm² per 1 kg of foodstuff in contact with.
4. The test item(s) marked *** on test report is/are analyzed at SGS (Thailand) Limited, address: 10, 10/1 - 4 and 12 Soi Rama III S. 59, Chong Nonsi, Yan Nawa, Bangkok.
5. The test result have been extracted from report number 5803410.

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b) Specific migration of heavy metal***

Method: With reference to EN 13130-1:2004. Analysis was performed by ICP-MS / ICP-OES.

Simulant Used: 3% acetic acid (w/v)

Test Condition: 40 Degree C for 10 days (1st Migration)

Single-use article:

Test Item	Result (1) (mg/kg) (1 st migration)	Reporting Limit (mg/kg)	Permissible Limit (mg/kg)
Specific Migration of Aluminium	ND	0.1	1
Specific Migration of Antimony	ND	0.01	0.04
Specific Migration of Arsenic	ND	0.01	ND
Specific Migration of Barium	ND	0.25	1
Specific Migration of Cadmium	ND	0.002	ND
Specific Migration of Chromium	ND	0.01	ND
Specific Migration of Cobalt	ND	0.01	0.05
Specific Migration of Copper	ND	0.25	5
Specific Migration of Iron	ND	5	48
Specific Migration of Lead	ND	0.01	ND
Specific Migration of Lithium	ND	0.1	0.6

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Test Item	Result (1) (mg/kg) (1 st migration)	Reporting Limit (mg/kg)	Permissible Limit (mg/kg)
Specific Migration of Manganese	ND	0.1	0.6
Specific Migration of Mercury	ND	0.01	ND
Specific Migration of Nickel	ND	0.01	0.02
Specific Migration of Zinc	ND	0.5	5
Specific Migration of Europium	ND	0.025	-
Specific Migration of Gadolinium	ND	0.025	-
Specific Migration of Lanthanum	ND	0.025	-
Specific Migration of Terbium	ND	0.025	-
Specific Migration of Europium + Gadolinium + Lanthanum + Terbium	ND	--	0.05
Comment	PASS	--	--

Sample Description:

1. Clear plastic bag with multicolor printed (inside)

Note :

1. mg/kg = milligram per kilogram of foodstuff in contact with
2. Degree C = degree Celsius
3. ND = Not Detected

Remark:

1. Test condition & simulant were specified by client.
2. The ratio of surface area to volume is 6 dm² per 1 kg of foodstuff in contact with.
3. The test item(s) marked *** on test report is/are analyzed at SGS (Thailand) Limited, address: 10, 10/1 - 4 and 12 Soi Rama III S. 59, Chong Nonsi, Yan Nawa, Bangkok.
4. The test result have been extracted from report number 5803410.

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c) clause 4(5) Visible Color Migration*

Method : With reference to Resolution AP (89) 1 and Kunststoffe im Lebensmittelverkehr, Part B II IX.

Simulant Used	Result (1)	Requirement
3% Acetic Acid (W/V)	No color release observed	No colour release
20% Ethanol (V/V)	No color release observed	No colour release
Coconut Oil	No color release observed	No colour release
Comment	PASS	--

Sample Description :

1. Clear plastic bag with multicolor printed (inside)

Note : 1. Requirement is according to Notification of the Ministry of Public Health (No.435) B.E. 2565 (2022) :
Qualities or standard for container made from plastic ; clause 4(5).

Remark:Test(s) marked * on this report are not included in the NSC-ONSC accreditation scope.

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SAMPLE/ATTACHMENT PICTURE



***** End of Report *****

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