





**Test Report No.** 5885336 Date: 13-May-2024

Page 1 of 8

Client: Prepack Thailand Co., Ltd.

30/145,Moo1,

Khok Kham, Muang Samutsakhon, Samut Sakorn 74000 Thailand

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

Sample Name : PET/ONY/LLDPE

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. : 6177041

Sample Condition : Sample is contained in a plastic bag.

Quantity Submitted : 1 bag

Sample Receiving Date : 19-Apr-2024

Testing Period : 19-Apr-2024 to 13-May-2024

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

# Signed for and on behalf of SGS (Thailand) Ltd.



### **Rutchuporn Moungsom**

#### **Toys and Hardlines Laboratory Manager**

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SGS (Thailand) Limited

Page 2 of 8

**Test Report No.** 5885336 Date: 13-May-2024

**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
50% 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 Report No.** 5885336 Date: 13-May-2024 **Page 3 of 8** 

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

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/dm2)	Reporting Limit (mg/dm2)	Permissible Limit (mg/dm2)
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 dm<sup>2</sup> 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 5885248

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Test Report No. TEST RESULTS

5885336

Date: 13-May-2024

Page 4 of 8

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 $Unless \ otherwise \ stated \ the \ results \ shown \ in \ this \ test \ report \ refer \ only \ to \ the \ sample(s) \ received \ and \ such \ sample(s) \ are \ retained \ for \ 30 \ days \ only.$ 



**TEST RESULTS** 





Page 5 of 8

Test Report No. 5885336 Date: 13-May-2024

## 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)

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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Date: 13-May-2024



Testing 0013
Testing 1703
SGS (Thailand) Limited

Page 6 of 8

Test Report No. 5885336

TEST RESULTS

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	-
pecific 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 product is single-use as specified by client.
- 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 5885248

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**TEST RESULTS** 





**Test Report No.** 5885336 Date: 13-May-2024 **Page 7 of 8** 

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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Testing 1703 SGS (Thailand) Limited

Page 8 of 8

**Test Report No.** 5885336 Date: 13-May-2024

## SAMPLE/ATTACHMENT PICTURE



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