

Test Report No. 4505474

Date : 13-Feb-2020

Page 1 of 5

Client : Prepack Thailand Co., Ltd.
30/145,Moo1,
Khok Kham,Muang, Samutsakorn 74000 Thailand

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

Sample Name : ONYLON/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. : 4668474
Sample Condition : Sample is contained in a plastic bag.
Quantity Submitted : 1 bag

Sample Receiving Date : 4-Feb-2020
Testing Period : 4-Feb-2020 to 13-Feb-2020

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

"Any holder of this document is advised that should client or third party information be supplied with respect to the goods or sample, SGS may, at its discretion, attached or indicate such information to the report but SGS makes no warranties or accepts no liable for the veracity or lack thereof of such Information."

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law."

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

4207187

Test Report No. 4505474

Date : 13-Feb-2020

Page 2 of 5

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
Commission Regulation (EU) No 10/2011 of 14 January 2011 and hence Article 3 of European Regulation No. 1935/2004	--
a) Plastic - Overall migration	
3% Acetic Acid (W/V) Aqueous Solution	PASS
10% Ethanol (V/V) Aqueous Solution	PASS
20% Ethanol (V/V) Aqueous Solution	PASS
Rectified Olive Oil	PASS
b) Plastic - Specific Migration of Heavy Metal	PASS

Remark: 1. Test results in this report are applicable for the item tested and reflects the tested sample as received.

**Signed for and on behalf of
SGS (Thailand) Limited**



**Rutchuporn Mungsom
Laboratory manager - Toy and Hardgood**

"Any holder of this document is advised that should client or third party information be supplied with respect to the goods or sample, SGS may, at its discretion, attached or indicate such information to the report but SGS makes no warranties or accepts no liable for the veracity or lack thereof of such Information."

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law."

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

4207187

Test Report No. 4505474

Date : 13-Feb-2020

Page 3 of 5

TEST RESULTS

Testing as per Commission Regulation (EU) No 10/2011

a) Plastic - 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 1186-5:2002 aqueous food simulants by cell method;
EN 1186-4:2002 olive oil by cell method.

Simulant Used	Test Condition	Result (1) (mg/dm ²)	Reporting Limit (mg/dm ²)	Permissible Limit (mg/dm ²)
3% Acetic Acid (W/V) Aqueous Solution	1 hour at 100 Degree C	ND	3.0	10
10% Ethanol (V/V) Aqueous Solution	1 hour at 100 Degree C	ND	3.0	10
20% Ethanol (V/V) Aqueous Solution	1 hour at 100 Degree C	ND	3.0	10
Rectified Olive Oil	1 hour at 100 Degree C	ND	3.0	10
Comment	--	PASS	--	--

Sample Description :
1. Clear plastic (inside)

- Note :
1. mg/dm² = milligram per square decimeter
 2. Degree C = degree Celsius
 3. ND = Not Detected
 4. Permissible Limit is according to Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments.

- Remark :
1. Analytical tolerance of aqueous simulants is 1mg/dm² or 6mg/kg
 2. Analytical tolerance of fatty food simulants is 3mg/dm² or 20mg/kg
 3. Test condition & simulant were specified by client.
 4. The ratio of surface area to volume ratio is 10 dm² per 1 kg of foodstuff in contact with.

"Any holder of this document is advised that should client or third party information be supplied with respect to the goods or sample, SGS may, at its discretion, attached or indicate such information to the report but SGS makes no warranties or accepts no liable for the veracity or lack thereof of such Information."

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law."

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

4207187

Test Report No. 4505474

Date : 13-Feb-2020

Page 4 of 5

TEST RESULTS

b) Plastic - Specific Migration of Heavy Metal

Method: Sample preparation in 3% acetic acid (w/v) in aqueous solution at 100 Degree C for 1 hour with reference to EN 13130-1:2004, Regulation EU No.10/2011 (1st migration) ; followed by analysis using Inductively Coupled Argon Plasma Spectrometry (ICP).

Test Item	Result (1) (mg/kg)	Reporting Limit (mg/kg)	Permissible Limit (mg/kg)
Specific Migration of Aluminium	ND	0.1	1**
Specific Migration of Barium	ND	0.25	1
Specific Migration of Cobalt	ND	0.05	0.05
Specific Migration of Copper	ND	0.25	5
Specific Migration of Iron	ND	0.25	48
Specific Migration of Lithium	ND	0.5	0.6
Specific Migration of Manganese	ND	0.25	0.6
Specific Migration of Zinc	ND	0.5	5**
Specific Migration of Nickel	ND	0.01	0.02***
Comment	PASS	--	--

Sample Description :

1. Clear plastic (inside)

Note :

1. mg/kg = milligram per kilogram of foodstuff in contact with
2. Degree C = degree Celsius
3. ND = Not Detected
4. Test condition & simulat were specified by client.
5. ** = The limits of aluminium and zinc according to Commission Regulation (EU) 2016/1416 shall be applied from 14 September 2018.
6. *** = The limits of nickel according to Commission Regulation (EU) 2017/752 shall be applied from 19 May 2019.
7. The ratio of surface area to volume ratio is 6 dm² per 1 kg of foodstuff in contact with.

"Any holder of this document is advised that should client or third party information be supplied with respect to the goods or sample, SGS may, at its discretion, attached or indicate such information to the report but SGS makes no warranties or accepts no liable for the veracity or lack thereof of such Information."

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law."

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

Test Report No. 4505474

Date : 13-Feb-2020

Page 5 of 5

SAMPLE/ATTACHMENT PICTURE



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

"Any holder of this document is advised that should client or third party information be supplied with respect to the goods or sample, SGS may, at its discretion, attached or indicate such information to the report but SGS makes no warranties or accepts no liable for the veracity or lack thereof of such Information."

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law."

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

4207187