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**Confidential report for:****Hanmere Polythene Ltd**

FAO: Guy Reynolds  
Blackhorse Road  
Letchworth Garden City  
Hertfordshire  
SG6 1HD

**Report on:****Overall migration from food contact materials**

Report number: AC/REP/141851/47 ♦ Issue date: 20<sup>th</sup> June 2017

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## SAMPLE INFORMATION

Company : Hanmere Polythene Ltd  
Product description : GS69 45µm Blue Tint  
Campden reference : AC/141851/47  
Date received : 27<sup>th</sup> April 2017  
Condition : Free from any apparent or obvious physical defects  
Storage : Ambient  
Date of analysis : 27<sup>th</sup> April – 20<sup>th</sup> June 2017  
Test data : CAW/B3P6-10

## METHODS AND REFERENCES

Testing programs for overall migration are devised in accordance with the BS EN ISO 1186 series of standards and Commission Regulation No. 10/2011 as amended.

Methods used for this work and accredited by UKAS are listed in the Schedule of Accreditation, a copy of which is available from: <http://www.campden.co.uk/campdenbri/qualityofservice.php>

Method TES-AC-500 is based on BS EN 1186:2002 parts 2, 4, 6, 8.

Global (overall) migration from packaging materials into olive oil food simulants by total immersion, single side contact by cell technique, single side contact by pouch technique and by article filling technique.

Method TES-AC-501 is based on BS EN 1186:2002 parts 3, 5, 7, 9 and 14.

Global (overall) migration from packaging materials into aqueous food simulants and substitute fatty food simulants by total immersion, single side contact by cell technique, single side contact by pouch technique and by article filling technique.

Four test specimens are used in each overall migration test performed with food stimulants to ensure that a minimum of three valid test results are obtained.

Sunflower oil is used as an alternative to rectified olive oil - "reference stimulant D". The sunflower oil used has characteristics in accordance with those specified in Annex A of BS EN 1186-1:2002.

## CALCULATION OF RESULTS

Where a test result for a replicate is found to be less than the limit of detection the calculated numerical value, *M* (as defined in clause 3.6.1 of BS EN 1186-3:2002 for aqueous testing and clause 8.1 in BS EN 1186-2:2002 for olive oil testing) and not the limit of detection is used for that replicate for the purpose of calculating the mean overall migration result. Where the calculated numerical value is negative, a value of zero is used for purposes of calculating the mean.

Concerning overall migration into oil, unless this report includes an explicit statement to the contrary, reduction factors are not taken into account when reporting the results.

Concerning specific migration results, in accordance with commission regulation 10/2011 the specific gravity of all simulants conventionally is assumed to be '1'. 1kg of food simulant therefore is taken to occupy the volume of 1L. The SML is set with the assumption that 6.0dm<sup>2</sup> of surface area comes into contact with 1kg of food. Results are adjusted for 6.0dm<sup>2</sup>/kg.

**OVERALL MIGRATION: TEST CONDITIONS & RESULTS**

Method : TES-AC-500 & TES-AC-501 (UKAS accredited)  
 Contact time/temp : 10 days @ 40°C  
 Overall migration limit : 10 mg/dm<sup>2</sup>

Simulant	Test results mg/dm <sup>2</sup>				Mean test result mg/dm <sup>2</sup>	Technique	Contact area
3%(w/v) Acetic Acid in an aqueous solution	0.10	<0.05	<0.05	0.15	0.1	Pouch Technique	2.0dm <sup>2</sup>
10%(v/v) Ethanol in an aqueous solution	0.15	0.50	0.10	<0.05	0.2	Pouch Technique	2.0dm <sup>2</sup>
Sunflower Oil	<0.05	<0.05	0.25	<0.05	<0.1	Pouch Technique	2.0dm <sup>2</sup>
Tenax (extracted with Diethyl Ether)	0.52	0.94	0.83		0.8	Single Surface	0.96dm <sup>2</sup>

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