

**Test Report No.:** Q00053956a 003

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**Client:** **GEOCAN IMPORTS**  
8300, rue Marconi  
Anjou Québec Canada  
H1J 1B2

**Test item(s):** Commodity, contact with foodstuff

**Identification/** 0.5L & 1.0L GLASS LINER VACUUM JUG  
**Model No(s):** SERIES / MODEL NO.: 10015373, BAA00707, 09014445, 09014489, 09014488,  
09014490, 09013879, 09013880, BAA01910, BWA70102,  
10015891, 10015982, 10015985, BAA00707, BAA00709,  
09014446, 10015132, BAA02207, BAA02204, BAA02504,  
BAA02505, BYA03101, BYA01401, BVA00301, BYA00501,  
BAA01901, BYA03001, BAA01601, BAA01602, BAA00801,  
BAB00721, BAB00912, BYB01422, 10015335, BAC01507,  
BAC01601, 10015275, BVC01601, BAC00701, BAC00705,  
08012895, BAC01401, BAC01407, BAC01411, 09013716,  
09013200, BVC00301, BYC03202, BAA01501, BAA00704,  
BAA00705, BAA00905, BAA01703, BAC00201, BAA00710,  
BAA00101, BAA00103, BAA00201

**Sample Receiving date:** 16 Oct. 2009;  
29 Oct. 2009;  
21 Apr. 2010

**Delivery condition:** Apparent good, Samples tested as received

**Test specification:****Test result:**

Customer's requirement:

Selected tests for the suitability for contact with foodstuffs complied with the following regulations:

- German §30 and §31 LFGB (Lebensmittel-, Bedarfsgegenstände- und Futtermittelgesetzbuch)

PASS

**Other Information:**

Test period: 16 Oct. 2009 – 30 Apr. 2010

Our reference no. of this report: Q00026582a 002

For and on behalf of  
TÜV Rheinland (Hong Kong) Ltd.

05 Nov. 2010

Date

  
Amy Chong / Project Chemist

Name/Position

Test result is drawn according to the kind and extent of tests performed.

This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

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Indication: Food contact  
 Product: Commodity, contact with foodstuff  
 § 2 (6) No. 1, German Food, Commodities and Animal Feed Code of Law (LFGB)

**Description of test specimen :**

Item: 0.5L &amp; 1.0L GLASS LINER VACUUM JUG

SERIES / MODEL NO.: 10015373, BAA00707, 09014445, 09014489, 09014488, 09014490, 09013879, 09013880, BAA01910, BWA70102, 10015891, 10015982, 10015985, BAA00707, BAA00709, 09014446, 10015132, BAA02207, BAA02204, BAA02504, BAA02505, BYA03101, BYA01401, BVA00301, BYA00501, BAA01901, BYA03001, BAA01601, BAA01602, BAA00801, BAB00721, BAB00912, BYB01422, 10015335, BAC01507, BAC01601, 10015275, BVC01601, BAC00701, BAC00705, 08012895, BAC01401, BAC01407, BAC01411, 09013716, 09013200, BVC00301, BYC03202, BAA01501, BAA00704, BAA00705, BAA00905, BAA01703, BAC00201, BAA00710, BAA00101, BAA00103, BAA00201

Material No.	Material	Color	Location
1	-	-	Jug (A)
2	-	-	Jug (B)
3	-	-	Jug (C)
4	-	-	Jug (D)
5	-	-	Jug (E)
6	-	-	Jug (F)
7	-	-	Jug (G)
8	-	-	Jug (H)
9	-	-	Jug (I)
10	Plastic	White	Spout for jug A / Spout for jug C / Spout for jug H
11	Plastic	Blue	Spout for jug B
12	Plastic	Transparent blue	Spout for jug D
13	Plastic	Transparent yellow	Spout for jug E
14	Plastic	Transparent orange	Spout for jug F
15	Plastic	Transparent green	Spout for jug G
16	Plastic	Blue	Body of jug D
17	Plastic	Yellow	Body of jug E
18	Plastic	Orange	Body of jug F
19	Plastic	Green	Body of jug G
20	Plastic	Light orange	Body of jug H / Body of jug I
21	Plastic	Black	Lid / Spout for jug I
22	Silicone	Translucent	Gasket
23	Glass	Silvery	Interior of jug

According to Regulation (EC) No 1935/2004 this product is an article or material that is intended to come into contact with food and according to § 2 (6) No. 1 of the German Food, Commodities and Animal Feed Code of Law (LFGB) this product is a commodity.

## Test Results

### 1. General manufacture and materials employed

The products submitted for testing are manufactured by a clean and hygienic manufacturer. No manufacturing residues or other damage could be determined which, in the sense of its foreseen and intended use, could lead to the user being endangered or the health of the user being impaired.

### 2. Sensorial examination

It is examined to the extent of food simulant being used, which comes into contact with the product, undergoes detectable changes in taste and smell. For this purpose, the food simulant was stored in the product under the below mentioned time and temperature. Afterwards, the food simulant was examined by appropriate number of tasters with regard to any divergence in smell and taste. Another test sample, which was used as a reference, was treated by the same way except that it had no contact with the product to be tested.

The test was carried out on the basis of DIN 10955:2004.

Evaluation scheme for the transfer of taste and smell:

- 0 = no discernible deviation
- 1 = barely discernible deviation
- 2 = weak deviation
- 3 = clear deviation
- 4 = strong deviation

Limit: 3 (failed)

The following simulation solvents and test conditions were stipulated:

food simulant	test duration/temperature
Distilled water	Fill with boiling water, close lid and store at 40°C for 24 hrs

Test No.:	1	Limit
Material No.:	4	
Parameter	Result (Average)	
transfer of smell into foodstuffs	0	<3
transfer of taste into foodstuffs	0	<3

Test No.:	2	Limit
Material No.:	9	
Parameter	Result (Average)	
transfer of smell into foodstuffs	0	<3
transfer of taste into foodstuffs	0	<3

The submitted products are inconspicuous with regard to the transfer of smell and taste to the food simulant.

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### 3. Global migration

The migratory behaviour is examined in accordance with EC Directive 2002/72/EC and the corresponding regulations. Deviating to the regulations the following tests were performed as orientating single tests.

Limit: §8 Part (2) of the German Regulation "Bedarfsgegenständeverordnung" (article 2 of the EC directive 2002/72/EC), synthetic material with contact to food

The following simulating solvents and test conditions were stipulated:

food simulant	test duration/temperature
3% acetic acid	Fill with boiling 3% acetic acid, close lid and store at 40°C for 24 hrs

Test No.:	1		Limit
Material No.:	1		
Parameter	Unit	Result	
3% acetic acid	mg/kg	15.5	60

Test No.:	2	Limit	
Material No.:	2		
Parameter	Unit		Result
3% acetic acid	mg/kg	22.5	60

Test No.:	3		Limit
Material No.:	3		
Parameter	Unit	Result	
3% acetic acid	mg/kg	11.0	60

Test No.:	4		Limit
Material No.:	4		
Parameter	Unit	Result	
3% acetic acid	mg/kg	6.5	60

Test No.:	5		Limit
Material No.:	5		
Parameter	Unit	Result	
3% acetic acid	mg/kg	<5.0	60

Test No.:	6		Limit
Material No.:	6		
Parameter	Unit	Result	
3% acetic acid	mg/kg	<5.0	60

Test No.:	7		Limit
Material No.:	7		
Parameter	Unit	Result	
3% acetic acid	mg/ka	<5.0	60

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Test No.:	8		Limit
Material No.:	8		
Parameter	Unit	Result	
3% acetic acid	mg/kg	16.5	60

Test No.:	9		Limit
Material No.:	9		
Parameter	Unit	Result	
3% acetic acid	mg/kg	20.0	60

Abbreviation: mg/kg denotes milligram per kilogram  
 < denotes less than

The examined item meets the requirement.

#### 4. Extractive Substances

The migratory behaviour is examined in accordance with the Recommendation of Plastics Intended to Come into Contact with Food in in BfR, ("Kunststoffempfehlungen") part XV, 2007, silicone and the corresponding regulations.

Limit: Recommendation of Plastics Intended to Come into Contact with Food in BfR, "Kunststoffempfehlungen" part XV, 2007, silicone

The following simulation solvents and test conditions were stipulated:

food simulant	test duration/temperature
3% acetic acid	5 hrs / Reflux

Test No.:	1		Limit
Material No.:	22		
Parameter	Unit	Result	
3% acetic acid	%	< 0.1	0.5

Abbreviation: < denotes less than

The examined items meet the requirement.

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**5. Volatiles organic substances**

The test was performed with reference to the 19<sup>th</sup> Communication on the testing of plastics,  
(Bundesgesundheitsbl., 14, (1971), page 265)

Limit: Recommendation of Plastics Intended to Come into Contact with Food in BfR, "Kunststoffempfehlungen"  
- Part V & VI, 2006 "Polystyrene and Styrene Co-polymer" - non-expanded polystyrene

**Polystyrene & Styrene copolymer**

Test No.:		1	Limit
Material No.:		12	
Parameter	Unit	Result	
Volatile organic substances	mg/dm <sup>2</sup>	<10	15

Test No.:	2		Limit
Material No.:	13		
Parameter	Unit	Result	
Volatile organic substances	mg/dm <sup>2</sup>	<10	15

Test No.:	3		Limit
Material No.:	14		
Parameter	Unit	Result	
Volatile organic substances	mg/dm <sup>2</sup>	<10	15

Test No.:	4		Limit
Material No.:	15		
Parameter	Unit	Result	
Volatile organic substances	mg/dm <sup>2</sup>	<10	15

Abbreviation: < denotes less than

The examined item meets the requirement.

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**6. Volatiles organic substances (Silicone)**

The test was performed according to the 61<sup>st</sup> Communication on the testing of plastics (Bundesgesundheitsbl., 46, (2003), page 362)

The following test condition was stipulated : 100°C for 2 hours

Limit : Recommendation of Plastics Intended to Come into Contact with Food in BfR, "Kunststoffempfehlungen" part XV, 2007, silicone, ("Bundesgesundheitsblatt 45, 2002 (Edition 5, page 463)

Test No.:	1		Limit
Material No.:	22		
Parameter	Unit	Result	
Volatile organic substances	%	0.14	0.5

The examined item meets the requirement.

**7. Peroxides (silicone)**

The test was performed according to the 58<sup>th</sup> Communication on testing of plastics in Bundesgesundheitsbl. 40 (1997) 412

Limit: Recommendation of Plastics Intended to Come into Contact with Food in BfR, "Kunststoffempfehlungen" part XV, 2007, silicone

Test No.:	1		Limit
Material No.:	22		
Parameter	Unit	Result	
Peroxides	%	< 0.01	n.d.

Abbreviation: n.d. denotes not detected  
 < denotes less than  
 Detection limit for peroxide is 0.01%

The examined item meets the requirement.

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**8. Release of lead and cadmium from glassware**

The migratory behaviour is examined reference to EC-Directive 84/500/EEC and the corresponding regulations. The following simulation solvents and test conditions were stipulated:

food simulant	test duration/temperature
3% acetic acid	Fill with boiling 3% acetic acid, close lid and store at 40°C for 24 hrs

The concentration of the elements in ceramic ware, glassware and drinking rim are examined by means of atomic absorption spectroscopy. The test is performed reference to EN 1388-1:1995, EN 1388-2:1995 and DIN 51031:1986 respectively.

**Glassware**

Test No.:	1	
Category:	2	
Material No.:	23	
Parameter	Unit	Result
Lead	mg/L	<0.2
Cadmium	mg/L	<0.02

Parameter	Unit	Result	Limit from technical decision
Chromium	mg/L	<0.1	2.7
Nickel	mg/L	<0.1	0.10
Copper	mg/L	<0.1	0.5
Cobalt	mg/L	<0.1	0.6

Abbreviation: < denotes less than

The examined item meets the requirements.

**Remark:**

\*1 According to EU directive 84/500/EEC, articles in contact with food should not exceed the following limits:

Category	Description	Unit	Limit	
			lead	cadmium
1	Articles which cannot be filled and articles which can be filled, the internal depth of which, measured from the lowest point to the horizontal plane passing through the upper rim, does not exceed 25 mm	mg/dm <sup>2</sup>	0.8	0.07
2	other articles which can be filled	mg/l	4.0	0.3
3	Cooking ware; packaging and storage vessels having a capacity of more than three litres	mg/l	1.5	0.1



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\*2 According to DIN 51032, articles in contact with food should not exceed the following limits:

Category	Description	Flatware *3		Hollow-ware *3	
		Lead (mg/dm <sup>2</sup> )	Cadmium (mg/dm <sup>2</sup> )	Lead (mg/l)	Cadmium (mg/l)
Tableware, kitchen equipment	Made from ceramic, glass and glass enamelled	0.8	0.07	4.0	0.3
	enamelled	0.8	0.07	0.8	0.07
Cooking and baking utensils, receptacles also used as packaging storage containers	Made from ceramic, glass and glass enamelled	0.4	0.05	1.5	0.1
	enamelled	0.1	0.05	0.4	0.07
Samples for enamelled containers, parts of equipment and water heaters		0.1	0.05	--	--

\*3 Definition of flatware and hollow-ware in DIN 51032:

Category	Description
Flatware	Articles with the internal depth of which, measured from the lowest point to the horizontal plane passing through the upper rim, does not exceed 25 mm. Include enamelled container, part of equipment and water heaters
Hollow-ware	other articles not fall into the category of flatware

## 9. Platinum in silicone material

The synthetic material is dissolved by acid digestion. The concentration of elements is determined by means of ICP-OES. The calibration is performed similar to EN 1122:2001.

Limit: Recommendation of Plastics Intended to Come into Contact with Food in BfR, ("Kunststoffempfehlungen") part XV, 2007, silicone

Test No.:	1		Limit
Material No.:	22		
Parameter	Unit	Result	
Platinum	mg/kg	<10	50

Abbreviation: < denotes less than

The examined item meets the requirement.

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**10. Cadmium and lead in the synthetic material**

The synthetic material of the product was digested with acid and the toxic elements were analysed by Inductively coupled plasma - Optical emission spectrophotometer. {QMA 36.035.55\_HKG}

Limit: Cadmium: Annex I, 76/769/EEC, 12.07.'91; "Chemikalien-Verbotsverordnung-ChemVerbots V", Annex I, No. 18., 6/2003

Test No.:	1		Limit
Material No.:	10		
Parameter	Unit	Result	
Cadmium	mg/kg	< 10	100
Lead	mg/ka	< 10	n.a.

Test No.:	2		Limit
Material No.:	11+16+17		
Parameter	Unit	Result	
Cadmium	mg/kg	< 10	100
Lead	mg/kg	< 10	n.a.

Test No.:	3		Limit
Material No.:	12+13+14		
Parameter	Unit	Result	
Cadmium	mg/kg	< 10	100
Lead	mg/kg	< 10	n.a.

Test No.:	4		Limit
Material No.:	15+18+19		
Parameter	Unit	Result	
Cadmium	mg/kg	< 10	100
Lead	mg/kg	< 10	n.a.

Test No.:	5		Limit
Material No.:	20		
Parameter	Unit	Result	
Cadmium	mg/kg	< 10	100
Lead	mg/kg	< 10	n a.

Test No.:	6		Limit
Material No.:	21		
Parameter	Unit	Result	
Cadmium	mg/kg	< 10	100
Lead	mg/kg	< 10	n.a.

Test No.:	7		Limit
Material No.:	22		
Parameter	Unit	Result	
Cadmium	mg/kg	< 10	100
Lead	mg/kg	13(*1)	n.a.

Abbreviation: n.a. denotes not applicable  
< denotes less than

**Remark:**

- \*1. The concentration of total lead is less than 30mg/kg, migration of lead is unlikely to occur.
- \*2. The examined items meet the requirement.

**11. Residual catalyst**

For selected metals, which might be used as catalysts or filling matters, the total concentration are determined in the material. The synthetic material is dissolved by acid digestion. The concentration of elements are determined by means of ICP-OES (QMA 36.035.55HKG). The calibration is performed similar to EN 1122:2001.

Limit: Recommendation of Plastics Intended to Come into Contact with Food in BfR, ("Kunststoffempfehlungen"), Part VII, 2007 (polypropylene).

Test No.:	1		Limit
Material No.:	10		
Parameter	Unit	Result	
Chromium	mg/kg	<10	10
Vanadium	mg/kg	<10	20
Zirconium	mg/kg	<10	100

Test No.:	2		Limit
Material No.:	11		
Parameter	Unit	Result	
Chromium	mg/kg	<10	10
Vanadium	mg/kg	<10	20
Zirconium	mg/kg	<10	100

Test No.:	3		Limit
Material No.:	16		
Parameter	Unit	Result	
Chromium	mg/kg	<10	10
Vanadium	mg/kg	<10	20
Zirconium	mg/kg	<10	100

Test No.:	4		Limit
Material No.:	17		
Parameter	Unit	Result	
Chromium	mg/kg	<10	10
Vanadium	mg/kg	<10	20
Zirconium	mg/kg	<10	100

Test No.:	5		Limit
Material No.:	18		
Parameter	Unit	Result	
Chromium	mg/kg	<10	10
Vanadium	mg/kg	<10	20
Zirconium	mg/kg	<10	100

Test No.:	6		Limit
Material No.:	19		
Parameter	Unit	Result	
Chromium	mg/kg	<10	10
Vanadium	mg/kg	<10	20
Zirconium	mg/kg	<10	100

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Test No.:		7	Limit
Material No.:		20	
Parameter	Unit	Result	
Chromium	mg/kg	<10	10
Vanadium	mg/kg	<10	20
Zirconium	mg/kg	<10	100

Test No.:		8	Limit
Material No.:		21	
Parameter	Unit	Result	
Chromium	mg/kg	<10	10
Vanadium	mg/kg	<10	20
Zirconium	mg/kg	<10	100

Abbreviation: &lt; denotes less than

The examined items meet the requirement.

**12. Migration of Polynuclear aromatic hydrocarbons (PAHs)**

The testing of migration was performed following Directive 2002/72/EC and the corresponding instructions then detected by GC-MS

The following simulating solvent and test condition was stipulated:

food simulant	test duration/temperature
3% acetic acid	Fill with boiling 3% acetic acid, close lid and store at 40°C for 24 hrs

Test No.:		1	technically preventable limit
Material No.:		1	
Parameter	Unit	Result	
Sum PAHs(EPA)	µg/L	< 10	n.d.

Test No.:		2	technically preventable limit
Material No.:		2	
Parameter	Unit	Result	
Sum PAHs(EPA)	µg/L	< 10	n.d.

Test No.:		3	technically preventable limit
Material No.:		3	
Parameter	Unit	Result	
Sum PAHs(EPA)	µg/L	< 10	n.d.

Test No.:		4	technically preventable limit
Material No.:		4	
Parameter	Unit	Result	
Sum PAHs(EPA)	µg/L	< 10	n.d.

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Test No.:	5		technically preventable limit
Material No.:	5		
Parameter	Unit	Result	
Sum PAHs(EPA)	µg/L	< 10	n.d.

Test No.:	6		technically preventable limit
Material No.:	6		
Parameter	Unit	Result	
Sum PAHs(EPA)	µg/L	< 10	n.d.

Test No.:	7		technically preventable limit
Material No.:	7		
Parameter	Unit	Result	
Sum PAHs(EPA)	µg/L	< 10	n.d.

Test No.:	8		technically preventable limit
Material No.:	8		
Parameter	Unit	Result	
Sum PAHs(EPA)	µg/L	< 10	n.d.

Test No.:	9		technically preventable limit
Material No.:	9		
Parameter	Unit	Result	
Sum PAHs(EPA)	µg/L	< 10	n.d.

Abbreviation: n.d. denotes not detected  
 < denotes less than  
 Detection limit: 10µg/L

The examined items meet the requirement.

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**13. Nonylphenol in Polymer**

The test was performed according to acetone/hexane extraction, GCMS (QMA 36.035.08 HKG)

Test No.:	1	
Material No.:	10	
Parameter	Unit	Result
Nonylphenol	mg/kg	<5

Test No.:	2	
Material No.:	11+16+17	
Parameter	Unit	Result
Nonylphenol	mg/kg	<5

Test No.:	3	
Material No.:	12+13+14	
Parameter	Unit	Result
Nonylphenol	mg/kg	<5

Test No.:	4	
Material No.:	15+18+19	
Parameter	Unit	Result
Nonylphenol	mg/kg	<5

Test No.:	5	
Material No.:	20	
Parameter	Unit	Result
Nonylphenol	mg/kg	<5

Test No.:	6	
Material No.:	21	
Parameter	Unit	Result
Nonylphenol	mg/kg	<5

Abbreviation: < denotes less than

The recommendation of the BfR, "Kunststoffe im Lebensmittelverkehr", serve as a basis for the evaluation for these results. Additives permitted by the Commodities Regulation may be used in accordance with the restrictions stipulated therein.

According to that, the residue of Tris(nonylphenyl)phosphite should not exceed 1%. This substance must comply with the purity requirements for tris(nonylphenyl)phosphite, 76th Communication of Bundesgesundheitsbl. 15 (1972).

The examined items meet the requirement.