

TEST REPORT

Test Report # 21A-022787 Date of Report Issue: November 26, 2021
Date of Sample Received: November 18, 2021 Pages: Page 1 of 18

CLIENT INFORMATION:

Company: BEL USA LLC
Address: 12610 NW 115 Avenue, Bldg. 200 Medley, FL
33178, USA



SAMPLE INFORMATION:

Product Name: PP bottle, Stemless glass in plastic (PETG), PETG bottle
Test Type: Full Test
Model/style No.: PG147, AG104, PG148, PG210, PG232, PG233, PG28, WB324
PO No.: PO2108000012, PO2109000013, PO2108000025
Buyer: -
Supplier: -
Country of Distribution: United States
Country of Origin: China
Testing Period: 11/22/2021-11/26/2021

OVERALL RESULT:

PASS

Please refer to the following pages for test result summary and appropriate notes.

QIMA (HANGZHOU) TESTING CO., LTD.

Jeremy Xu
Chemical Laboratory Supervisor



QIMA (HANGZHOU) TESTING CO., LTD. • 4-5/F A2 BLDG NO. 1213 HUOJU SOUTH ROAD PUYAN STREET BINJIANG DISTRICT HANGZHOU CHINA

• Email: Labtesting@qima.com • Tel: (86) 571 8999 7158.

Test(s) marked with 'φ' was subcontracted to external laboratory.

The test result(s) and conclusion(s) in this report relate only to the sample(s) as received and method /regulation section(s) tested as described herein.

If it is not further specified in the report, the decision rule for stating conformity is based on the QIMA decision rule.

This test report may not be reproduced in whole or in part, without written approval of QIMA (Hangzhou) Testing Co., Ltd.

TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	California Proposition 65, Total Lead in Substrate Materials
PASS	The Illinois Lead Poisoning Prevention Act (LPPA) (410 ILCS 45/6), Total Lead in Substrate Materials of Other Items
PASS	California Proposition 65, Bisphenol A content
PASS	Client's requirement, Bisphenol A content
PASS	California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)
PASS	FDA 21 CFR 177.2600, Rubber
PASS	FDA 21 CFR 177.1520, Polypropylene Homopolymers
PASS	FDA 21 CFR 180.22 and 181.32, Acrylonitrile/Styrene Copolymers
PASS	FDA 21 CFR 177.1520, Polyethylene
PASS	FDA 21 CFR 177.2420, Polyester Resins, Cross-Linked
PASS	FDA 21 CFR 177.1210, Closures with Sealing Gaskets



DETAILED RESULTS:

California Proposition 65, Total Lead in Substrate Materials

Test Method: CPSC-CH-E1001-08.3 (Metal), CPSC-CH-E1002-08.3 (Non-Metal)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	2+4+7	3	5	6+12+17	8+11+14	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	ND	ND	ND	100
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	9+16	10+13+15	---	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	---	---	---	100
Conclusion	PASS	PASS	---	---	---	

Note:

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit =15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

The Illinois Lead Poisoning Prevention Act (LPPA) (410 ILCS 45/6), Total Lead in Substrate Materials of Other Items

Test Method: CPSC-CH-E1001-08.3 (Metal) and/or CPSC-CH-E1002-08.3 (Non-Metal)
 Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	2+4+7	3	5	6+12+17	8+11+14	Total Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	ND	ND	ND	600
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	9+16	10+13+15	---	---	---	Total Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	---	---	---	600
Conclusion	PASS	PASS	---	---	---	

Note:

mg/kg=Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.



DETAILED RESULTS:

California Proposition 65, Bisphenol A content

Test Method: In-House Method
 Analytical Method: Gas Chromatography-Mass Spectrometer
 Liquid Chromatography-Mass Spectrometer (LC-MS)

Specimen No.		2+4+7	6+12	10+13+15	16	Client's limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Bisphenol A (BPA)	80-05-7	ND	ND	ND	ND	Not Detected
Conclusion		PASS	PASS	PASS	PASS	

Specimen No.		17	---	---	---	Client's limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Bisphenol A (BPA)	80-05-7	ND	---	---	---	Not Detected
Conclusion		PASS	---	---	---	

Note:

mg/kg=milligram per kilogram

ND=Not Detected(Reporting limit = 0.1 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

Client's requirement, Bisphenol A content

Test Method: In-House Method
 Analytical Method: Gas Chromatography-Mass Spectrometer
 Liquid Chromatography-Mass Spectrometer Mass Spectrometer (LC-MS/MS)

Specimen No.	2+4+7	6+12	10+13+15	16	Client's limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Bisphenol A (BPA)	ND	ND	ND	ND	Not Detected
Conclusion	PASS	PASS	PASS	PASS	

Specimen No.	17	---	---	---	Client's limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Bisphenol A (BPA)	ND	ND	---	---	Not Detected
Conclusion	PASS	---	---	---	

Note:

mg/kg=milligram per kilogram

ND=Not Detected(Reporting limit = 1.0mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.



DETAILED RESULTS:

California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		2+4+7	6+12+17	8+11+14	9+16	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	1000
Conclusion		PASS	PASS	PASS	PASS	

Note:

mg/kg (Milligrams per kilogram) = 0.0001 % w/w (Percent by weight)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.	10+13+15	---	---	---	Limit (mg/kg)	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	---	---	---	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	---	---	---	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	---	---	---	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	---	---	---	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	---	---	---	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	---	---	---	1000
Conclusion		PASS	---	---	---	

Note:

mg/kg (Milligrams per kilogram) = 0.0001 % w/w (Percent by weight)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client's requirement.



DETAILED RESULTS:

FDA 21 CFR 177.2600, Rubber

Test Method: FDA 21 CFR 177.2600

Specimen No.			17	RL	Limit
Test Item	Test Condition		Result		
	Temp.	Duration			
Distilled water extractive (mg/in ²)	Reflux	First 7 hours	ND	2	20
Distilled water extractive (mg/in ²)	Reflux	Succeeding 2 hours	ND	0.1	1
n-Hexane extractive (mg/in ²)	Reflux	First 7 hours	ND	15	175
n-Hexane extractive (mg/in ²)	Reflux	Succeeding 2 hours	1.3	0.4	4
Conclusion			PASS		

Note:

Temp. = Temperature

mg/in² = Milligrams per square inch

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

The specification is quoted from 21 CFR 177.2600 (e) and 177.2600 (f).



DETAILED RESULTS:

FDA 21 CFR 177.1520, Polypropylene Homopolymers

Test Method: FDA 21 CFR 177.1520

Specimen No.			4	RL	Limit
Test Item	Test Condition		Result		
	Temp.	Duration			
Density (g/cc)	NA	NA	0.905	NA	0.880 – 0.913
Melting point (°C)	NA	NA	172	NA	150 – 180
n-Hexane extractive (% w/w)	Reflux	2 hours	1.6	0.1	6.4
Xylene extractive (% w/w)	Reflux	2 hours	1.6	0.5	9.8
Conclusion			PASS		

Specimen No.			7	RL	Limit
Test Item	Test Condition		Result		
	Temp.	Duration			
Density (g/cc)	NA	NA	0.906	NA	0.880 – 0.913
Melting point (°C)	NA	NA	171	NA	150 – 180
n-Hexane extractive (% w/w)	Reflux	2 hours	1.4	0.1	6.4
Xylene extractive (% w/w)	Reflux	2 hours	0.8	0.5	9.8
Conclusion			PASS		

Note:

Temp. = Temperature

°C = Degree Celsius

g/cc = Grams per cubic centimeter

% w/w = Percent by weight

NA = Not applicable

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

The specification is quoted from 21 CFR 177.1520 (c) 1.1.



DETAILED RESULTS:

FDA 21 CFR 177.1520, Polypropylene Homopolymers

Test Method: FDA 21 CFR 177.1520

Specimen No.			10	RL	Limit
Test Item	Test Condition		Result		
	Temp.	Duration			
Density (g/cc)	NA	NA	0.907	NA	0.880 – 0.913
Melting point (°C)	NA	NA	172	NA	150 – 180
n-Hexane extractive (% w/w)	Reflux	2 hours	1.4	0.1	6.4
Xylene extractive (% w/w)	Reflux	2 hours	0.6	0.5	9.8
Conclusion			PASS		

Specimen No.			15	RL	Limit
Test Item	Test Condition		Result		
	Temp.	Duration			
Density (g/cc)	NA	NA	0.902	NA	0.880 – 0.913
Melting point (°C)	NA	NA	173	NA	150 – 180
n-Hexane extractive (% w/w)	Reflux	2 hours	2.5	0.1	6.4
Xylene extractive (% w/w)	Reflux	2 hours	1.6	0.5	9.8
Conclusion			PASS		

Note:

Temp. = Temperature

°C = Degree Celsius

g/cc = Grams per cubic centimeter

% w/w = Percent by weight

NA = Not applicable

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

The specification is quoted from 21 CFR 177.1520 (c) 1.1.



DETAILED RESULTS:

FDA 21 CFR 177.1520, Polypropylene Homopolymers

Test Method: FDA 21 CFR 177.1520

Specimen No.			16	RL	Limit
Test Item	Test Condition		Result		
	Temp.	Duration			
Density (g/cc)	NA	NA	0.905	NA	0.880 – 0.913
Melting point (°C)	NA	NA	168	NA	150 – 180
n-Hexane extractive (% w/w)	Reflux	2 hours	1.8	0.1	6.4
Xylene extractive (% w/w)	Reflux	2 hours	0.8	0.5	9.8
Conclusion			PASS		

Note:

Temp. = Temperature

°C = Degree Celsius

g/cc = Grams per cubic centimeter

% w/w = Percent by weight

NA = Not applicable

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

The specification is quoted from 21 CFR 177.1520 (c) 1.1.



DETAILED RESULTS:

FDA 21 CFR 180.22 and 181.32, Acrylonitrile/Styrene Copolymers

Test Method: FDA 21 CFR 180.22 and 181.32, EN 13130-3:2004

Analytical Method: Headspace-Gas Chromatography with Mass Spectrometry

Acrylonitrile Monomers:

Specimen No.		13			
Test Simulant	Test Condition		Result	RL	Limit
	Temp.	Duration			
3% Acetic acid extractive (mg/in ²)	120°F	2 hours	ND	0.001	0.003
Conclusion			PASS		

Note:

Temp. = Temperature

°F = Degree Fahrenheit

mg/in² = Milligrams per square inch

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

The specification is quoted from 21 CFR 181.32 (b) (3).



DETAILED RESULTS:

FDA 21 CFR 177.1520, Polyethylene

Test Method: FDA 21 CFR 177.1520

Specimen No.			12	RL	Limit
Test Item	Test Condition		Result		
	Temp.	Duration			
Density (g/cc)	NA	NA	0.91	NA	0.85-1.00
n-Hexane extractive (% m/m)	50°C	2 hours	1.0	0.4	5.5
Xylene extractive (% m/m)	Reflux	2 hours	1.4	1.0	11.3
Conclusion			PASS		

Note:

Temp. = Temperature

°C = Degree Celcius

g/cc = Grams per cubic centimeter

% m/m = Percent by mass

NA = Not applicable

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

The specification is quoted from 21 CFR 177.1520 (c) 2.1.



DETAILED RESULTS:

FDA 21 CFR 177.2420, Polyester Resins, Cross-Linked

Test Method: FDA 21 CFR 177.2420

Specimen No.			1	RL	Limit
Test Item	Test Condition		Result		
	Temp.	Duration			
Distilled water extractive (mg/in ²)	Fill boiling	Cooling to 100°F	ND	0.01	0.1
n-Heptane extractive (mg/in ²)	120°F	0.25hours	0.04	0.01	0.1
8% Ethanol extractive (mg/in ²)	Fill boiling	Cooling to 100°F	ND	0.01	0.1
50% Ethanol extractive (mg/in ²)	Fill boiling	Cooling to 100°F	ND	0.01	0.1
Conclusion			PASS		

Note:

Temp. = Temperature

°F = Degree Fahrenheit

mg/in² = Milligrams per square inch

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

The specification is quoted from 21 CFR 177.2420 (c).



DETAILED RESULTS:

FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimen No.			6	RL	Limit
Test Item	Test Condition		Result		
	Temp.	Duration			
Distilled water extractive (mg/kg)	Fill boiling	Cooling to 100°F	ND	10	50
n-Heptane extractive (mg/kg)	120°F	0.25hours	ND	10	50
8% Ethanol extractive (mg/kg)	Fill boiling	Cooling to 100°F	ND	10	50
Conclusion			PASS		

Note:

Temp. = Temperature

°F = Degree Fahrenheit

ppm (Parts per million) = mg/kg (Milligrams per kilogram)

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

The specification is quoted from 21 CFR 177.1210 Table 2 Section 3.



SPECIMEN DESCRIPTION:

Specimen no.	Specimen description	Location
1	Transparent plastic	Interior (WB324)
2	Transparent plastic	Main body (WB324)
3	Silvery metal	Lid (WB324)
4	Black plastic	Lid (WB324)
5	Silvery metal	Bottom (WB324)
6	Translucent soft plastic	Seal ring (WB324)
7	White plastic	Lid (PG232)
8	Grey soft plastic	Lid (PG232)
9	White plastic	Handle (PG232)
10	Grey plastic	Lid (PG210)
11	Dark grey soft plastic	Lid (PG210)
12	Translucent soft plastic	Straw (PG210)
13	Transparent plastic	Suction nozzle (PG210)
14	Purple soft plastic	Lid (PG147)
15	Transparent purple plastic	Main body (PG147)
16	Red plastic	Lid (PG28)
17	Translucent soft plastic	Air hole plug (PG28)



SAMPLE PHOTO:



-End Report-

