



# TEST REPORT

## Test information

<b>Applicant</b>	: MANN BAMBOO FIBER WARE CO., LTD.
<b>Address</b>	: No. 12629, Classic Plaza, Fanhua Avenue, Economic Development Zone, Hefei, Anhui, China
<b>Sample Description</b>	: Bamboo dinner set.
<b>Color</b>	: Not provided.
<b>PO#</b>	: 1810220.
<b>Style #</b>	: Not provided.
<b>Country of origin</b>	: China.
<b>Export to</b>	: USA / UK.
<b>Receiving Date</b>	: April 24, 2020.
<b>Test period</b>	: April 24, 2020.~May 25, 2020.
<b>Amended date</b>	: May 13, 2020.
<b>Test Requested</b>	: Tests requested in accordance to client requirement.

<u>TEST ITEMS</u>	<u>CONCLUSION</u>
Determination of Net Chloroform Soluble Extractives – US FDA 21 CFR 176.170	PASS
Determination of Amount of Net Chloroform Soluble Extractives – US FDA 21 CFR 177.1460	PASS
Pentachlorophenol (PCP) test – Regulation (EC) No 1935/2004 of European Parliament and of the Council of 24 October 2004	PASS
Specific migration of Formaldehyde – Regulation (EC) No 1935/2004 of European Parliament and of the Council of 24 October 2004	PASS
Overall migration – Commission Regulation(EU) No 10/2011 of 14 January 2011 with Amendments	PASS
Specific migration of heavy metal – Commission Regulation(EU) No 10/2011 of 14 January 2011 with Amendments	PASS
Specific migration of Melamine – Commission Regulation(EU) No 10/2011 of 14 January 2011 with Amendments	PASS

Signed for and on behalf of  
RTS TEST CO., LTD. (Zhejiang)

  


CHANGBIAO YU

Approved signatory

**Zhejiang RTS Test Co., LTD.**

Phone: +86(0)579-85640080

Email: [ruiyi-8@zj-rt.com](mailto:ruiyi-8@zj-rt.com)

<http://www.irtslab.com>

浙江省义乌市稠江街道英才创业园B区7幢2-4层,  
Choujiang Street, Yiwu, Zhejiang.

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request. Attention is drawn to the limitation of liability, indemnification and jurisdictional policies defined therein. The results shown in this Test report refer only to the sample(s) tested unless otherwise stated. This test report shall not be reproduced, except in full, without written approval of the Company. If in doubt, please write an email. \* This item is beyond CNAS permitting capacity list and proceed by outsourcing labs.

**Sample image:**



**Test result:****A.\* Determination of Net Chloroform Soluble Extractives – US FDA 21 CFR 176.170:**

Test method: With reference to US FDA 21 CFR 176.170.

Test Number	Item/ component description(s)	Material (claimed by the client)
A1	White cup (inner surface)	Bamboo powder + melamine

  

Extractants	Test Condition	Test result(mg/in <sup>2</sup> )	permissible Limit
		A1	(mg/in <sup>2</sup> )
Distilled Water	212°F for 0.5 hours	<0.2	0.5
n-heptane fraction	120°F for 0.5 hours	<0.2	0.5

Note: 1) &lt;= less than.

**B.\*Determination of Amount of Net Chloroform Soluble Extractives – US FDA 21 CFR 177.1460:**

Test method: With reference to US FDA 21 CFR 177.1460.

Test Number	Item/ component description(s)	Material (claimed by the client)
A2	White spoon	Bamboo powder + melamine

  

Extractants	Test Condition	Test result(mg/inch <sup>2</sup> )	permissible Limit
		A2	(mg/inch <sup>2</sup> )
Distilled Water	212°F for 0.5 hours	<0.2	0.5
n-heptane	120°F for 0.5 hours	<0.2	0.5

Note: 1) &lt;= less than.

**C. \*Pentachlorophenol (PCP) test – Regulation (EC) No 1935/2004 of European Parliament and of the Council of 24 October 2004:****Test method:** With reference to PD CEN/TR 14823-2003, analysis was performed by GC-MS.

Test Number	Item/ component description(s)	Material (claimed by the client)	
A2	White spoon	Bamboo powder + melamine	
Test Item	MDL	Test result(mg/kg)	Maximum permissible Limit (mg/kg)
Pentachlorophenol (PCP)	0.05	A2 N.D.	0.15

**Note:**

- 1) MDL=Method Detection Limit.
- 2) N.D. = not detected, less than MDL.
- 3) “▲” = This data is obtained from composite testing on more than one materials or shapes, it is possible that result obtained from individual testing on any one of the materials or shapes is substantially higher. Please be cautious when using this data for compliance evaluation.

**D. \*Specific migration of Formaldehyde – Regulation (EC) No 1935/2004 of European Parliament and of the Council of 24 October 2004:****Test Method:** With reference to BS EN 13130-1:2004, analysis was performed by UV-Vis.**Stimulant used:** 3% acetic acid (w/w) aqueous solution.**Test condition :** 100°C 1.0h.

Test Number	Item/ component description(s)	Material (claimed by the client)		
A2	White spoon	Bamboo powder + melamine		
Parameter	Unit	MDL	Test Results	Maximum permissible limit
Specific migration of Formaldehyde	mg/kg	0.1	A2 <sup>Δ</sup> 10.5	15
<b>Conclusion:</b>			PASS	-

**Note:**

- 1). 1mg/kg = 0.0001% = mass percent.
- 2). N.D. = Not detected, less than MDL(method detect limit).
- 3) Test condition and stimulant were specified by client
- 4) “Δ”= As specified by client ,the retest result is based on the new sample.

**Zhejiang RTS Test Co., LTD.**

Phone: +86(0)579-85640080  
 Email: [ruiyi-8@zj-rt.com](mailto:ruiyi-8@zj-rt.com)  
<http://www.irtslab.com>  
 浙江省义乌市稠江街道英才创业园B区7幢2-4层,  
 2-4/f, Building 7, Block B, Ying cai Business Park,  
 Choujiang Street, Yiwu, Zhejiang.

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request. Attention is drawn to the limitation of liability ,indemnification and jurisdictional policies defined therein .The results shown in this Test report refer only to the sample(s) tested unless otherwise stated This test report shall not be reproduced ,except in full, without written approval of the Company. If in doubt, please write an email.

**E. Overall migration – Commission Regulation(EU) No 10/2011 of 14 January 2011 with Amendments:****Test method:** With reference to BS EN 1186-1:2002 for selection of conditions and test method;

Or BS EN 1186-3:2002 into aqueous food simulants by total immersion;

Or BS EN 1186-14:2002 contact with fatty foodstuffs using test media iso-octane and 95% ethanol.

Test Number	Item/ component description(s)	Material (claimed by the client)	
A3	Round plate (with printing)	Bamboo powder + melamine	
Simulant used	Test condition (for repeated use)	Test result(mg/dm <sup>2</sup> )	Maximum permissible Limit (mg/dm <sup>2</sup> )
		A1.1	
10% Ethanol	100°C for 1.0 hours	3.2	10
95% Ethanol	60°C for 3.0 hours	3.9	10
Iso-octane	60°C for 1.0 hours	3.3	10
Simulant used	Test condition (for repeated use)	Test result(mg/dm <sup>2</sup> )	Maximum permissible Limit (mg/dm <sup>2</sup> )
		A1.1 <sup>Δ</sup>	
3% Acetic acid	100°C for 1.0 hours	8.2	10

**Note:**

- 1). <= less than.
- 2). mg/dm<sup>2</sup> = milligram per square decimeter.
- 3). Permissible limit is according to Commission Regulation(EU) No 10/2011 of 14 January 2011 with amendments.
- 4). Test condition & simulant were specified by client.
- 5) "Δ"= As specified by client ,the retest result is based on the new sample.

**F. \*Specific migration of heavy metal – Commission Regulation(EU) No 10/2011 of 14 January 2011 with Amendments:****Test Method:** Sample preparation with reference to BS EN 13130-1:2004, Analysis was performed by ICP-MS.**Stimulant used:** 3% acetic acid (w/w) aqueous solution.**Test condition :** 100°C 1.0h.

Test Number	Item/ component description(s)		Material (claimed by the client)	
A4	White bowl (with printing)		Bamboo powder + melamine	
Parameter	Unit	MDL	Test Results A4	Maximum permissible limit
Food contact surface area	dm <sup>2</sup>	-	1.38	-
Volume of stimulant used	mL	-	230	-
Aluminium(Al)	mg/kg	0.25	N.D.	1
Barium(Ba)	mg/kg	0.25	N.D.	1
Cobalt(Co)	mg/kg	0.03	N.D.	0.05
Copper(Cu)	mg/kg	0.25	N.D.	5
Iron(Fe)	mg/kg	0.25	N.D.	48
Lithium(Li)	mg/kg	0.5	N.D.	0.6
Manganese(Mn)	mg/kg	0.25	N.D.	0.6
Zinc(Zn)	mg/kg	0.5	N.D.	5
Nickle (Ni)	mg/kg	0.01	N.D.	0.02
<b>Conclusion:</b>			PASS	-

**Note:**

- 1). 1mg/kg = 0.0001% = mass percent.
- 2). N.D. = Not detected, less than MDL(method detect limit).
- 3). Test condition & simulant were specified by client.
- 4). Permissible limit is according to Commission Regulation (EU) No 10/2011 and its Amendment Regulation (EU) No.2017/752 on plastic materials.

**Zhejiang RTS Test Co., LTD.**

Phone: +86(0)579-85640080

Email: [ruiyi-8@zj-rt.com](mailto:ruiyi-8@zj-rt.com)<http://www.irtslab.com>浙江省义乌市稠江街道英才创业园B区7幢2-4层,  
2-4/f, Building 7, Block B, Ying cai Business Park,  
Choujiang Street, Yiwu, Zhejiang.

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request. Attention is drawn to the limitation of liability, indemnification and jurisdictional policies defined therein. The results shown in this Test report refer only to the sample(s) tested unless otherwise stated. This test report shall not be reproduced, except in full, without written approval of the Company. If in doubt, please write an email.

**G. \*Specific migration of Melamine – Commission Regulation(EU) No 10/2011 of 14 January 2011 with Amendments:****Test Method:** Sample preparation with reference to BS EN 13130-1:2004, Analysis was performed by GC-MS.**Stimulant used:** 3% acetic acid(w/v)aqueous solution**Test condition :** 100°C 1.0h.

Test Number	Item/ component description(s)	Material (claimed by the client)		
A4	White bowl (with printing)	Bamboo powder + melamine		
Test item	Unit	MDL	Test Results	Maximum permissible limit
Specific migration of Melamine	mg/kg	0.5	A4 <sup>Δ</sup> N.D.	2.5
<b>Conclusion:</b>			PASS	-

**Note:**

- 1). 1mg/kg = 0.0001% = mass percent.
- 2). N.D. = Not detected, less than MDL(method detect limit).
- 3). Test condition & simulant were specified by client.
- 4) "Δ"= As specified by client ,the retest result is based on the new sample.

----- End of Report -----