



# TEST REPORT

Report: **1000003951**  
 Date: 6-Jul-2016  
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<b>Client Name:</b>	TWOODIE PBC		
<b>Client Address:</b>	1209 ORANGE ST, WILMINGTON DE 19801,USA		
<b>Item Name:</b>	WOODEN BLOCKS & PACKAGING (BOX/BAG)		
<b>UPC/Style/Item #:</b>	GEM1JPUKAW2015	<b>Supplier/Manufacturer:</b>	TOY:KUKKIA CO LTD;BAG:WUXI LONG DE PACKING CRAFT CO LTD; BOX:SHANTOU YANGYU FOODSTUFF CO LTD
<b>Sample Size:</b>	1set	<b>Country of Origin:</b>	JAPAN(Toy)/CHINA(Packaging)
<b>Buyer/Customer:</b>	TBC	<b>Export Market(s):</b>	USA/AUS/HK
<b>Receiving Date:</b>	21-Jun-2016	<b>Test Period:</b>	24-Jun-2016 - 5-Jul-2016
<b>Age Label:</b>	-	<b>Testing Age Grade:</b>	0+
<b>Add Information:</b>	Some results were quoted from the test Report No. S1504906.		

## Report Summary

#	Test	Reference Standard/Method	Result
1	Toy Safety: Mechanical and Physical Properties	ISO 8124-1:2014	<b>PASS</b>
2	Toy Safety: Flammability Test	ISO 8124-2:2014	<b>PASS</b>
3	Physical & Mechanical Requirements	ASTM F963-11	<b>PASS</b>
4	Flammability of Solids	ASTM F963-11, Clause 4.2/A5	<b>PASS</b>
5	Soluble Heavy Metals ASTM F963-11	ASTM F963-11, determined by Inductively Coupled Plasma - Atomic Emission Spectrometry (ICP-AES)	<b>PASS</b>
6	Migration of Certain Elements ISO 8124-3:2010+A1:2014	ISO 8124-3:2010 + A1:2014, determined by Inductively Coupled Plasma - Atomic Emission Spectrometry (ICP-AES)	<b>PASS</b>
7	Lead in Substrate-Non Metal CPSIA H.R. 4040 Sec,101	CPSC-CH-E1002-08.1, determined by Atomic Absorption Spectrometer(AAS)	<b>PASS</b>
8	Heavy Metals Content in Packaging Material European Parliament and Council Directive 94/62/EC	Cadmium, Lead, Mercury and Total Chromium referring to EPA 3052-1996, determined by Inductively Coupled Plasma - Atomic Emission Spectrometry(ICP-AES). Chromium(VI) referring to EPA 3060A-1996 + EPA 7196A-1992, determined by spectrophotometer	<b>PASS</b>

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Signed for and on behalf of STS



Harry Tian  
(Manager – Testing)

Signed for and on behalf of STS



Mandy Liu  
(Chemical Test Manager)

## 1. Toy Safety: Mechanical and Physical Properties – ISO 8124-1:2014

**PASS**

Table 1.1

	Test Clauses	Results
4	General requirements	-
4.1	Normal use	Pass
4.2	Reasonably foreseeable abuse	Pass
4.3	Material	-
4.3.1	Material quality	Pass
4.4	Small parts	-
4.4.1	For children under 36 months	Pass
4.5	Shape, size and strength of certain toys	-
4.5.1	Squeeze toys, rattles and certain other toys	Pass
4.6	Edges	-
4.6.1	Accessible sharp edges of glass or metal	Pass
4.7	Points	-
4.7.1	Accessible sharp points	Pass
4.7.3	Wooden toys	Pass
4.11	Cords and elastics	-
4.11.1	Cords and elastics in toys intended for children under 18 months	Pass

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## 2. Toy Safety: Flammability Test – ISO 8124-2:2014

**PASS**

Table 2.1

	Test Clauses	Results
4.1	General	Pass

## 3. Physical & Mechanical Requirements –ASTM F963-11

**PASS**

Table 3.1

	Test Clauses	Results
4.1	Material Quality	Pass
4.6	Small Objects	Pass
4.7	Accessible Edges	Pass
4.9	Accessible Points	Pass
4.14	Cords, Straps, and Elastics	Pass
4.22	Teethers and Teething Toys	Pass
5.2	Age Grading Labeling	Pass
7.1	Producer's Markings	Pass

## 4. Flammability of Solids –ASTM F963-11, Clause 4.2/ A5

**PASS**

Table 4.1

	Test Clauses	Results
ASTM F963-11 Clause 4.2/A5	Flammability	Pass



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## 5. Soluble Heavy Metals ASTM F963-11, determined by ICP-AES

**PASS**

Table 5.1

Compound	Material #1	Material #2	Material #3	Material #4	Limit (mg/kg)	RL (mg/kg)
1 Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	60	5
2 Arsenic (As)	N.D.	N.D.	N.D.	N.D.	25	2
3 Barium (Ba)	N.D.	N.D.	N.D.	N.D.	1000	5
4 Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	75	5
5 Chromium (Cr)	N.D.	N.D.	N.D.	N.D.	60	5
6 Lead (Pb)	N.D.	N.D.	N.D.	N.D.	90	5
7 Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	60	5
8 Selenium (Se)	N.D.	N.D.	N.D.	N.D.	500	5
<b>Conclusion</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	-	-

Remark(s): (a) mg/kg: milligram per kilogram = part per million = ppm  
(b) RL: Report limit  
(c) N.D.: Not detected (result is less than RL)  
(d) N.C.: Not conclusive

The results of Soluble Heavy Metals were quoted from the Report No. S1504906.

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## 6. Migration of Certain Elements ISO 8124-3:2010+A1:2014, determined by ICP-AES

**PASS**

Table 6.1

Compound	Material #1	Material #2	Material #3	Material #4	Limit (mg/kg)	RL (mg/kg)
1 Antimony (Sb)	N.D.	N.D.	N.D.	N.D.	60	5
2 Arsenic (As)	N.D.	N.D.	N.D.	N.D.	25	2
3 Barium (Ba)	N.D.	N.D.	N.D.	N.D.	1000	5
4 Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	75	5
5 Chromium (Cr)	N.D.	N.D.	N.D.	N.D.	60	5
6 Lead (Pb)	N.D.	N.D.	N.D.	N.D.	90	5
7 Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	60	5
8 Selenium (Se)	N.D.	N.D.	N.D.	N.D.	500	5
<b>Conclusion</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	-	-

Remark(s): (a) mg/kg: milligram per kilogram = part per million = ppm  
(b) RL: Report limit  
(c) N.D.: Not detected (result is less than RL)  
(d) N.C.: Not conclusive

The results of Soluble Heavy Metals were quoted from the Report No. S1504906.

## 7. Lead Content (Pb) in Non-metal Substrate - CPSIA H.R. 4040 Sec.101 CPSC-CH-E1002-08.1 and determined by AAS

**PASS**

Table 7.1

Compound	Material #1+2	Material #3+4	Limit (mg/kg)	RL (mg/kg)
1 Lead (Pb)	N.D.	N.D.	100	10
<b>Conclusion</b>	<b>PASS</b>	<b>PASS</b>	-	-

Remark(s): (a) mg/kg: milligram per kilogram = part per million = ppm  
(b) RL: Report limit  
(c) N.D.: Not detected (result is less than RL)  
(d) N.C.: Not conclusive

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## 8. Heavy Metals Content in Packaging Material

**PASS**

Cadmium, Lead, Mercury and Total Chromium referring to EPA 3052-1996, determined by ICP-AES.  
Chromium(VI) referring to EPA 3060A-1996 + EPA 7196A-1992, determined by spectrophotometer.

Table 8.1

	Compound	Material #5	Material #6	Material #7	Limit (mg/kg)	RL (mg/kg)
1	Cadmium(Cd)	N.D.	N.D.	N.D.	-	10
2	Lead (Pb)	N.D.	N.D.	N.D.	-	10
3	Mercury(Hg)	N.D.	N.D.	N.D.	-	10
4	Chromium(VI) (Cr(VI))* <sup>1</sup>	N.D.	N.D.	N.D.	-	10
5	Sum of 1, 2, 3 & 4	N.D.	N.D.	N.D.	100	-
	<b>Conclusion</b>	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>	-	-

Remark(s): (a) mg/kg: milligram per kilogram = part per million = ppm

(b) RL: Report limit

(c) N.D.: Not detected (result is less than RL)

(d) N.C.: Not conclusive

\*1: Total chromium was determined to evaluate the content of Hexavalent Chromium (Cr(VI)). The result of total chromium N.D. indicates that no Cr(VI) was found in the material.

## 9. Photo(s)



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Product Photo

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