

# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

**Applicant:** PLAN CREATIONS CO., LTD.  
8 MOO 8, TRANG-PALIAN RD.,  
YANTAKAO, TRANG, THAILAND 92140  
ATTN: K.NARONG, K.SUPAPORN

Issued Date: Dec 13, 2019

### Sample description:

Quantity of sample:	One (1) set
Sample description:	Wooden toy
Date sample received:	October 29, 2019
Date information received:	December 02, 2019

### Client Information:

One (1) set of submitted sample said to be SHAPE & SORT

Item Name:	SHAPE & SORT
Item Number:	5398



\*\*\*\*\*

### Test conducted:

As requested by the applicant, for details please refer to attached page(s)

\*\*\*\*\*

To be continued

For and on behalf of :  
Intertek Testing Services (Thailand) Ltd.,  
Hardlines Laboratory

  
Ladtaka Wongwiboonporn  
Laboratory Manager  
Hardlines Department



# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.



Number: BKKH19014535

**Conclusion:**

<u>Tested samples</u>	<u>Standard</u>	<u>Result</u>
Submitted sample	U.S. ASTM F963-17 for Physical and mechanical tests	Pass
	U.S. ASTM F963-17 for Flammability test of materials other than textile materials	Pass
	U.S. ASTM F963-17 for Heavy elements Test	Pass
	<u>Standard - U.S. CFR title 16</u> (CPSC regulations) Part 1303 total Lead content	Pass
	<u>Standard</u> U.S. Consumer product safety improvement Act 2008(H.R. 4040) Title I, Section 101 For total lead content in surface coating	Pass
	U.S. Consumer product safety improvement Act 2008(H.R. 4040) Title I, Section 101 For total lead content in non-surface coating material (substrate)	Pass
	US 16 CFR Part 1307 for Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates	Pass
	Phthalate Content Requirement base on the California Proposition 65	Pass
	Illinois Lead Poisoning Prevention Act 410 ILCS 45 section 6 (public act 095-1019)	Pass

\*\*\*\*\*



# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

**Remark:**

The chemical test results was not conducted on the below components of samples. Applicant claimed the components were tested on our previous test report.

<u>Components</u>	<u>Report No.</u>	<u>Date</u>
<u>ASTM F963-17: Heavy metal</u>		
YELLOW COATING ON WOOD	BKKH19007790S1	Jul 15, 2019
LIGHT GREEN COATING ON WOOD	BKKH19008312S1	Jul 15, 2019
LACQUER COATING ON WOOD	BKKH19007792S1	Jul 15, 2019
ORANGE COATING ON WOOD	BKKH19008029S1	Jul 18, 2019
BROWN COATING ON WOOD	BKKH19007791S1	Jul 15, 2019
WHITE ELASTIC	BKKH19008026S1	Jul 18, 2019
<u>Lead in surface coating</u>		
YELLOW COATING ON WOOD	BKKH19007790S1	Jul 15, 2019
LIGHT GREEN COATING ON WOOD	BKKH19008312S1	Jul 15, 2019
LACQUER COATING ON WOOD	BKKH19007792S1	Jul 15, 2019
ORANGE COATING ON WOOD	BKKH19008029S1	Jul 18, 2019
BROWN COATING ON WOOD	BKKH19007791S1	Jul 15, 2019
<u>Lead in substrate</u>		
WHITE ELASTIC	BKKH19008026S1	Jul 18, 2019
<u>Phthalate content</u>		
YELLOW COATING ON WOOD	BKKH19007790S1	Jul 15, 2019
LIGHT GREEN COATING ON WOOD	BKKH19008312S1	Jul 15, 2019
LACQUER COATING ON WOOD	BKKH19007792S1	Jul 15, 2019
ORANGE COATING ON WOOD	BKKH19008029S1	Jul 18, 2019
WHITE ELASTIC	BKKH19008026S1	Jul 18, 2019
BROWN COATING ON WOOD	BKKH19007791S1	Jul 15, 2019

\*\*\*\*\*



## TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

1 Physical And Mechanical Tests

Test Standard : ASTM Standard Consumer Safety Specification for Toy Safety F963-17.

Applicant's specified testing age : For age over 12 months.

The submitted samples were undergone the use and abuse tests in accordance with the Federal Hazardous Substances Act (FHSA), Title 16, Code of Federal Regulations : -

Test	FHSA	Parameter
Drop test	Section 1500.51(b)	10 x 4.5 ft
Torque test	Section 1500.53(e)	4 in-lbf
Tension test	Section 1500.53(f)	15 lbf
Compression test	Section 1500.53(g)	30 lbf

Clause	Testing items	Assessment
4.1	Material quality	P
4.5	Sound-producing toys	NA
4.6.1	Toys intended for children under 36 months (small objects)	P
4.6.2 <sup>▲</sup>	Mouth-actuated toys	NA
4.6.3	Toys and games for 36 months to 72 months (small part warning)	NA
4.7	Accessible edges	NA
4.8	Projections	NA
4.9	Accessible points	P
4.10	Wires or rods	NA
4.11	Nails and fasteners	NA
4.12	Plastic film	NA
4.13	Folding mechanisms and hinges	NA
4.14	Cords, straps and elastics	P
4.15	Stability and over-load requirements	NA
4.16	Confined spaces	NA
4.17	Wheels, tires and axles	NA
4.18	Holes, clearance, and accessibility of mechanisms	NA
4.19	Simulated protective devices	NA
4.20(4.20.1 <sup>▲</sup> )	Pacifiers	NA
4.21	Projectile toys	NA
4.22	Teethers and teething toys	NA

# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

Clause	Testing items	Assessment
4.23	Rattles	NA
4.24	Squeeze toys	NA
4.25 (4.25.10, 4.25.11 <sup>▲</sup> )	Battery-operated toys	NA
4.26	Toys intended to be attached to a crib or playpen	NA
4.27	Stuffed and beanbag-type toys	NA
4.28	Stroller and carriage toys	NA
4.29	Art materials	NA
4.30	Toy gun marking	NA
4.31	Balloons	NA
4.32	Certain toys with nearly spherical ends	NA
4.33	Marbles	NA
4.34	Balls	NA
4.35	Pompoms	NA
4.36	Hemispheric-shaped objects	NA
4.37 <sup>▲</sup>	Yoyo elastic tether toys	NA
4.38	Magnets	NA
4.39	Jaw entrapment in handles and steering wheels	NA
4.40	Expanding materials	NA
4.41	Toy chests	NA
5	Labelling requirement	P #
6	Instructional literature	P
7	Producer's markings - name of producer (toy and package) - address (package)	Yes Yes

Remark : P = Pass NA = Not applicable

▲ = Tested items are not included in the TISI Accreditation

# = Only artwork of packing was provided for review.

The submitted samples were undergone the tests in accordance with clause 8.5 through clause 8.17 and 8.19 through 8.26 on normal use, abuse and specific tests for different types of toys whichever is applicable.

Testing period : October 29, 2019 to December 09, 2019

\*\*\*\*\*



# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

2 Flammability Test

Test Standard : Clause 4.2 of the ASTM Standard Consumer Safety Specification for Toy Safety F963-17.

Results : Did not ignite

Testing period : October 29, 2019 to December 09, 2019

\*\*\*\*\*













**TEST REPORT**

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

4 Total Lead (Pb) content▲

As per U.S. Code of Federal Regulations title 16 Part 1303. Acid digestion method was used and total Lead content was determined by Inductively Couple Plasma Optical Emission Spectrometry.

Tested component	Result %	LOD %	LOQ %	Limit %
(1)	ND	0.0002	0.0013	0.0090
(2)	ND	0.0002	0.0013	0.0090
(3)	ND	0.0002	0.0013	0.0090
(4)	<0.0013	0.0002	0.0013	0.0090
(5)	ND	0.0002	0.0013	0.0090

Remark: % = percentage < = Less than  
LOD = Limit of Detection LOQ = Limit of Quantitation  
ND = Not detected (Less than LOD)  
▲ = Tested items are not included in the TISI Accreditation

Tested components:

- (1) = YELLOW COATING ON WOOD Refer BKKH19007790S1
- (2) = LIGHT GREEN COATING ON WOOD Refer BKKH19008312S1
- (3) = LACQUER COATING ON WOOD Refer BKKH19007792S1
- (4) = ORANGE COATING ON WOOD Refer BKKH19008029S1
- (5) = BROWN COATING ON WOOD Refer BKKH19007791S1

5 Total lead (Pb) content in surface coating

As per U.S. Consumer Product Safety Improvement Act of 2008 (H.R. 4040), Title I, Section 101 for children's products containing Lead, CPSC-CH-E1003-09.1:2011 method was used and total Lead content was determined by Inductively Couple Plasma Optical Emission Spectrometry.

Tested component	Result mg/kg	LOD mg/kg	LOQ mg/kg	Limit mg/kg
(1)	ND	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	<13	2	13	90
(5)	ND	2	13	90

Remark: mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million  
LOD = Limit of Detection LOQ = Limit of Quantitation  
ND = Not detected (Less than LOD) < = Less than

Tested components:

- (1) = YELLOW COATING ON WOOD Refer BKKH19007790S1
- (2) = LIGHT GREEN COATING ON WOOD Refer BKKH19008312S1
- (3) = LACQUER COATING ON WOOD Refer BKKH19007792S1
- (4) = ORANGE COATING ON WOOD Refer BKKH19008029S1
- (5) = BROWN COATING ON WOOD Refer BKKH19007791S1

\*\*\*\*\*





# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

7 Phthalate content

As per CPSC-CH-C1001-09.3:2010 and U.S. Consumer Product Safety Improvement Act 2008 (H.R. 4040), Title I, Section 108 requirement on Phthalates, solvent extraction method was used and Phthalate content was determined by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

	<u>Result</u>					<u>LOD</u>	<u>LOQ</u>	<u>(16CFR1307)</u>	<u>NPR</u>
	(1)	(2)	(3)	(4)	(5)	(%, w/w)	(%, w/w)	Limit (%, w/w)	(%, w/w)
Dibutyl Phthalate (DBP)	ND	ND	ND	ND	ND	0.0015	0.0030	0.1	0.1
Di(2-ethylhexyl) phthalate (DEHP)	ND	ND	ND	ND	ND	0.0015	0.0030	0.1	0.1
Benzyl butyl Phthalate (BBP)	ND	ND	ND	ND	ND	0.0015	0.0030	0.1	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND	ND	ND	ND	0.0015	0.0090	0.1	0.1
Di-n-octyl Phthalate (DNOP)	ND	ND	ND	ND	ND	0.0015	0.0030	--	--
Di-iso-decyl Phthalate (DIDP)	ND	ND	ND	ND	ND	0.0015	0.0090	--	--
Di-isobutyl phthalate (DIBP) ▲	ND	ND	ND	ND	ND	0.0015	0.0030	0.1	0.1
Di-n-pentyl phthalate (DPENP) ▲	ND	ND	ND	ND	ND	0.0015	0.0030	0.1	0.1
Di-n-hexyl phthalate (DHEXP) ▲	ND	ND	ND	ND	ND	0.0015	0.0030	0.1	0.1
Di-cyclohexyl phthalate (DCHP) ▲	ND	ND	ND	ND	ND	0.0015	0.0030	0.1	0.1
Diisooctyl phthalate (DIOP) ▲	ND	ND	ND	ND	ND	0.0015	0.0090	--	--

Remark : The above limit was quoted according to US 16 CFR Part 1307 for Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates except the Phthalate no.5-6,11 was conducted as per applicant requested only.

- NPR = Notice of proposed rulemaking
- %, w/w = Percentage weight by weight
- LOD = Limit of Detection
- LOQ = Limit of Quantitation
- ND = Not detected (Less than LOD)
- ▲ = Tested items are not included in the TISI Accreditation

Tested components:

(1) = YELLOW COATING ON WOOD	Refer	BKKH19007790S1
(2) = LIGHT GREEN COATING ON WOOD	Refer	BKKH19008312S1
(3) = LACQUER COATING ON WOOD	Refer	BKKH19007792S1
(4) = ORANGE COATING ON WOOD	Refer	BKKH19008029S1
(5) = WHITE ELASTIC	Refer	BKKH19008026S1

\*\*\*\*\*



# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

Phthalate content

As per CPSC-CH-C1001-09.3:2010 and U.S. Consumer Product Safety Improvement Act 2008 (H.R. 4040), Title I, Section 108 requirement on Phthalates, solvent extraction method was used and Phthalate content was determined by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

	<u>Result</u> <u>(%, w/w)</u>	<u>LOD</u> <u>(%, w/w)</u>	<u>LOQ</u> <u>(%, w/w)</u>	<u>(16CFR1307)</u> <u>Limit (%, w/w)</u>	<u>NPR</u> <u>(%, w/w)</u>
	(6)				
Dibutyl Phthalate (DBP)	ND	0.0015	0.0030	0.1	0.1
Di(2-ethylhexyl) phthalate (DEHP)	ND	0.0015	0.0030	0.1	0.1
Benzyl butyl Phthalate (BBP)	ND	0.0015	0.0030	0.1	0.1
Di-iso-nonyl Phthalate (DINP)	ND	0.0015	0.0090	0.1	0.1
Di-n-octyl Phthalate (DNOP)	ND	0.0015	0.0030	--	--
Di-iso-decyl Phthalate (DIDP)	ND	0.0015	0.0090	--	--
Di-isobutyl phthalate (DIBP)▲	ND	0.0015	0.0030	0.1	0.1
Di-n-pentyl phthalate (DPENP)▲	ND	0.0015	0.0030	0.1	0.1
Di-n-hexyl phthalate (DHEXP)▲	ND	0.0015	0.0030	0.1	0.1
Di-cyclohexyl phthalate (DCHP)▲	ND	0.0015	0.0030	0.1	0.1
Diisooctyl phthalate (DIOP)▲	ND	0.0015	0.0090	--	--

Remark : The above limit was quoted according to US 16 CFR Part 1307 for Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates except the Phthalate no.5-6,11 was conducted as per applicant requested only.

- NPR = Notice of proposed rulemaking
- %, w/w = Percentage weight by weight
- LOD = Limit of Detection
- LOQ = Limit of Quantitation
- ND = Not detected (Less than LOD)
- ▲ = Tested items are not included in the TISI Accreditation

Tested components:

(6) = BROWN COATING ON WOOD

Refer BKKH19007791S1

\*\*\*\*\*



# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

8 Phthalate content test<sup>▲</sup>

By solvent extraction and Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

	<u>Result</u>					<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
	<u>(%, w/w)</u>					<u>(%, w/w)</u>	<u>(%, w/w)</u>	<u>(%, w/w)</u>
	(1)	(2)	(3)	(4)	(5)			
Dibutyl Phthalate (DBP)	ND	ND	ND	ND	ND	0.0015	0.0030	0.1
Di(2-ethylhexyl) phthalate (DEHP)	ND	ND	ND	ND	ND	0.0015	0.0030	0.1
Benzyl butyl Phthalate (BBP)	ND	ND	ND	ND	ND	0.0015	0.0030	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND	ND	ND	ND	0.0015	0.0090	0.1
Diocetyl Phthalate (DNOP)	ND	ND	ND	ND	ND	0.0015	0.0030	0.1
Di-iso-decyl Phthalate (DIDP)	ND	ND	ND	ND	ND	0.0015	0.0090	0.1
Di-n-hexyl Phthalate (DnHP)	ND	ND	ND	ND	ND	0.0015	0.0030	0.1

Remark : % , w/w = Percentage weight by weight  
 LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 ND = Not detected (Less than LOD)  
 ▲ = Tested items are not included in the TISI Accreditation

Note : The above limit was quoted according to the California Proposition 65

Tested components:

(1) = YELLOW COATING ON WOOD	Refer	BKKH19007790S1
(2) = LIGHT GREEN COATING ON WOOD	Refer	BKKH19008312S1
(3) = LACQUER COATING ON WOOD	Refer	BKKH19007792S1
(4) = ORANGE COATING ON WOOD	Refer	BKKH19008029S1
(5) = WHITE ELASTIC	Refer	BKKH19008026S1

\*\*\*\*\*



# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

Phthalate content test<sup>▲</sup>

By solvent extraction and Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

	<u>Result</u> <u>(%, w/w)</u>	<u>LOD</u> <u>(%, w/w)</u>	<u>LOQ</u> <u>(%, w/w)</u>	<u>Limit</u> <u>(%, w/w)</u>
(6)				
Dibutyl Phthalate (DBP)	ND	0.0015	0.0030	0.1
Di(2-ethylhexyl) phthalate (DEHP)	ND	0.0015	0.0030	0.1
Benzyl butyl Phthalate (BBP)	ND	0.0015	0.0030	0.1
Di-iso-nonyl Phthalate (DINP)	ND	0.0015	0.0090	0.1
Diocetyl Phthalate (DNOP)	ND	0.0015	0.0030	0.1
Di-iso-decyl Phthalate (DIDP)	ND	0.0015	0.0090	0.1
Di-n-hexyl Phthalate (DnHP)	ND	0.0015	0.0030	0.1

Remark :     %, w/w = Percentage weight by weight  
                   LOD = Limit of Detection  
                   LOQ = Limit of Quantitation  
                   ND = Not detected (Less than LOD)  
                   ▲ = Tested items are not included in the TISI Accreditation

Note :        The above limit was quoted according to the California Proposition 65

Tested components:

(6) =    BROWN COATING ON WOOD

Refer    BKKH19007791S1

\*\*\*\*\*





# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

9 Total Lead (Pb) Content<sup>▲</sup>

As per Illinois Lead poisoning prevention act 410 ILCS 45 section 6 (public act 095-1019), acid digestion method was used and total Lead content was determined by Inductively Couple Plasma Optical Emission Spectrometry.

I Surface coating material

<u>Tested component</u>	<u>Result</u> mg/kg	<u>LOD</u> mg/kg	<u>LOQ</u> mg/kg	<u>Limit</u> mg/kg
(1)	ND	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	<13	2	13	90
(5)	ND	2	13	90

Remark: < = Less than  
mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million  
LOD = Limit of Detection  
LOQ = Limit of Quantitation  
ND = Not detected (Less than LOD)

Requirement: ▲ = Tested items are not included in the TISI Accreditation  
According to Illinois Lead poisoning prevention act 410 ILCS 45 section 6 (public act 095-019), appropriate warning statement is required when the Lead content of the submitted sample is more than 40 ppm but less than 90 ppm for surface coatings and less than 100 ppm for substrates by total weight or a lower standard for Lead content as may be established by federal or state law or regulation.

Tested components:

(1) = YELLOW COATING ON WOOD	Refer	BKKH19007790S1
(2) = LIGHT GREEN COATING ON WOOD	Refer	BKKH19008312S1
(3) = LACQUER COATING ON WOOD	Refer	BKKH19007792S1
(4) = ORANGE COATING ON WOOD	Refer	BKKH19008029S1
(5) = BROWN COATING ON WOOD	Refer	BKKH19007791S1

\*\*\*\*\*



# TEST REPORT

The report shall not be reproduced without written approval from Intertek  
The results relate only to the item tested.

Number: BKKH19014535

Test conducted:

II Non-surface coating material (substrate)

<u>Tested component</u>	<u>Result</u>	<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
	<u>mg/kg</u>	<u>mg/kg</u>	<u>mg/kg</u>	<u>mg/kg</u>
(6)	ND	1	13	100

Remark:

mg/kg = Milligram per kilogram based on weight of sample; = ppm = Parts per million  
 LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 ND = Not detected (Less than LOD)

Requirement: According to Illinois Lead poisoning prevention act 410 ILCS 45 section 6 (public act 095-019), appropriate warning statement is required when the Lead content of the submitted sample is more than 40 ppm but less than 90 ppm for surface coatings and less than 100 ppm for substrates by total weight or a lower standard for Lead content as may be established by federal or state law or regulation.

Tested components:

(6) = WHITE ELASTIC

Refer BKKH19008026S1

Note: LOD and LOQ value in this test report were effective since October, 2014

\*\*\*\*\*END\*\*\*\*\*/KS/NK

*Except where explicitly agreed in writing, all work and services performed by Intertek is subject to our standard Terms and Conditions which can be obtained at our website: <http://www.intertek.com/terms/>. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. This report is made solely on the basis of your instructions and / or information and materials supplied by you and provide no warranty on the tested sample(s) be truly representative of the sample source. The report is not intended to be a recommendation for any particular course of action, you are responsible for acting as you see fit on the basis of the report results. Intertek is under no obligation to refer to or report upon any facts or circumstances which are outside the specific instructions received and accepts no responsibility to any parties whatsoever, following the issue of the report, for any matters arising outside the agreed scope of the works. This report does not discharge or release you from your legal obligations and duties to any other person. You are the only one authorized to permit copying or distribution of this report (and then only in its entirety). Any such third parties to whom this report may be circulated rely on the content of the report solely at their own risk. This report shall not be reproduced, except in full.*

