

The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

Date: Aug 09, 2017

Applicant: PLAN CREATIONS CO., LTD.

8 MOO 8, TRANG-PALIAN RD.,

YANTAKAO, TRANG, THAILAND 92140 ATTN: K.NARONG, K.SUPAPORN

Sample description:

Quantity of sample:

Sample description:

Date sample received:

Date information received:

One (1) set

Wooden toy

July 07, 2017

August 07, 2017

Client Information:

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

Item Name: TWIST & SHAPE

Item Number: 5645





BKKH17008330

Test conducted:

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

To be continued

Authorized by:

For Intertek Testing Services (Thailand) Ltd.,

Hardlines Laboratory

Ladter N

Ladtaka Wongwiboonporn Laboratory Manager

Hardlines Department

Page 1 of 19



The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

lusion:

Tested samples <u>Standard</u> Result Submitted sample U.S. ASTM F963-16 for Physical and mechanical tests **Pass**

> U.S. ASTM F963-16 for Flammability test of materials Pass

other than textile materials

U.S. ASTM F963-11 and ASTM F963-16 for **Pass**

Heavy elements Test

Standard - U.S. CFR title 16

(CPSC regulations) **Pass**

Part 1303 total Lead content

Standard

Pass 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 U.S. Consumer product safety improvement

Act 2008(H.R. 4040) Title I, Section 108

Requirement on 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)

Remark: As requested by the applicant, the test was conducted only on components listed in this report.

Other components were not tested.





The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

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.

Components	Report No.	<u>Date</u>
ASTM F963-11: Heavy metal		
YELLOW COATING ON WOOD	BKKH16014215	Oct 04,2016
BLUE COATING ON WOOD	BKKH16015744	Nov 07,2016
DARK GREEN COATING ON WOOD	BKKH16015744	Nov 07,2016
GREEN COATING ON WOOD	BKKH16016102S2	Dec 01,2016
Solid Wood	BKKH17000142	Jan 10,2017
ASTM F963-16: Heavy metal		
YELLOW COATING ON WOOD (8950)	BKKH17008950	Jul 26, 2017
LACQUER COATING ON WOOD	BKKH17008950	Jul 26, 2017
ORANGE COATING ON WOOD	BKKH17008950	Jul 26, 2017
BLUE COATING ON WOOD (8950)	BKKH17008950	Jul 26, 2017
SAWDUST WOOD	BKKH17008452	Jul 14, 2017
WHITE PLASTIC JOINT	BKKH17008825	Jul 24, 2017
Lead in surface coating		
YELLOW COATING ON WOOD	BKKH16014215	Oct 04,2016
BLUE COATING ON WOOD	BKKH16015744	Nov 07,2016
DARK GREEN COATING ON WOOD	BKKH16015744	Nov 07,2016
GREEN COATING ON WOOD	BKKH16016102S2	Dec 01,2016
YELLOW COATING ON WOOD (8950)	BKKH17008950	Jul 26, 2017
LACQUER COATING ON WOOD	BKKH17008950	Jul 26, 2017
ORANGE COATING ON WOOD	BKKH17008950	Jul 26, 2017
BLUE COATING ON WOOD (8950)	BKKH17008950	Jul 26, 2017
<u>Lead in substrate</u>		
Solid Wood	BKKH17000142	Jan 10,2017
SAWDUST WOOD	BKKH17008452	Jul 14, 2017
WHITE PLASTIC JOINT	BKKH17008825	Jul 24, 2017
Phthalate content		
YELLOW COATING ON WOOD	BKKH16014215	Oct 04, 2016
BLUE COATING ON WOOD	BKKH16015744	Nov 07, 2016
DARK GREEN COATING ON WOOD	BKKH16015744	Nov 07, 2016
GREEN COATING ON WOOD	BKKH16016102S2	Dec 01, 2016
SAWDUST WOOD	BKKH17008452	Jul 14, 2017
YELLOW COATING ON WOOD (8950)	BKKH17008950	Jul 26, 2017
LACQUER COATING ON WOOD	BKKH17008950	Jul 26, 2017
ORANGE COATING ON WOOD	BKKH17008950	Jul 26, 2017
BLUE COATING ON WOOD (8950)	BKKH17008950	Jul 26, 2017
WHITE PLASTIC JOINT	BKKH17008825	Jul 24, 2017





The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

Test conducted:

1 Physical And Mechanical Tests *

Test Standard: ASTM Standard Consumer Safety Specification for Toy Safety F963-16.

Age group for testing: For age over 18 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 1500.52(b)
 4 x 3.0 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	<u>Testing items</u>	<u>Assessment</u>
4.1	Material quality	Р
4.5	Sound-producing toys	NA
4.6.1	Toys intended for children under 36 months (small objects)	Р
4.6.2	Mouth-actuated toys	NA
4.6.3	Toys and games for 36 months to 72 months (small part warning)	NA
4.7	Accessible edges	Р
4.8	Projections	NA
4.9	Accessible points	Р
4.10	Wires or rods	NA
4.11	Nails and fasteners	Р
4.12	Plastic film	NA
4.13	Folding mechanisms and hinges	NA
4.14	Cords, straps and elastics	NA
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	Pacifiers	NA
4.21	Projectile toys	NA
4.22	Teethers and teething toys	NA



TESTING 0417

The results relate only to the item tested.

Number: BKKH17008330

Test conducted:

<u>Clause</u>	<u>Testing items</u>	<u>Assessment</u>
4.23	Rattles	NA
4.24	Squeeze toys	NA
4.25	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	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	Р
6	Instructional literature	Р
7	Producer's markings	
	- name of producer (package)	Yes
	- address (package)	Yes

Remark: P = Pass NA = Not applicable

▲ = Tested items are not included in the TISI Accreditation

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: July 07, 2017 to July 27, 2017

Flammability Test A

Test Standard: Clause 4.2 of the ASTM Standard Consumer Safety Specification for Toy Safety F963-16.

Results: Did not ignite

▲ = Tested items are not included in the TISI Accreditation

Testing period: July 07, 2017 to July 27, 2017

Page 5 of 19



Intertek Testing Services (Thailand) Ltd.



The report shall not be reproduced without written approval from Intertek



The results relate only to the item tested.

Test conducted:

3 Heavy Elements Analysis

As per clause 4.3.5.1(2) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11 and F963-16 $^{\blacktriangle}$, acid extraction method was used and heavy elements migration content were determined by ICP-OES analysis.

			Result			LOD	LOQ	Limit mg/kg
			mg/kg			mg/kg	mg/kg	
	(1)	(2)	(3)	(4)	(5)			
Sol. Barium (Ba)	<4	<4	<4	<4	ND	1	5	1000
Sol. Lead (Pb)	ND	ND	ND	<4	ND	1	5	90
Sol. Cadmium (Cd)	ND	ND	ND	ND	ND	1	5	75
Sol. Antimony (Sb)	ND	ND	ND	ND	ND	2	5	60
Sol. Selenium (Se)	ND	ND	ND	ND	ND	1	5	500
Sol. Chromium (Cr)	ND	ND	ND	ND	ND	2	5	60
Sol. Mercury (Hg)	ND	ND	ND	ND	ND	1	5	60
Sol. Arsenic (As)	ND	ND	ND	ND	ND	2	5	25

Remark: Sol. = Soluble

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 items are not included in the TISI Accreditation

Tested components:

(1) =	YELLOW COATING ON WOOD	Refer	BKKH16014215
(2) =	BLUE COATING ON WOOD	Refer	BKKH16015744
(3) =	DARK GREEN COATING ON WOOD	Refer	BKKH16015744
(4) =	GREEN COATING ON WOOD	Refer	BKKH16016102S2
(5) =	YELLOW COATING ON WOOD (8950)	Refer	BKKH17008950

Note: The results of soluble toxic elements were adjusted by subtracting the analytical correction factor.









Number: BKKH17008330

Test conducted:

Heavy Elements Analysis

As per clause 4.3.5.1(2) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11 and F963-16⁴, acid extraction method was used and heavy elements migration content were determined by ICP-OES analysis.

			Result mg/kg	<u>LOD</u> mg/kg	<u>LOQ</u> mg/kg	<u>Limit mg/kg</u>
	(6)	(7)	(8)			
Sol. Barium (Ba)	ND	<5	ND	1	5	1000
Sol. Lead (Pb)	ND	<5	<5	1	5	90
Sol. Cadmium (Cd)	ND	ND	ND	1	5	75
Sol. Antimony (Sb)	ND	ND	ND	2	5	60
Sol. Selenium (Se)	ND	ND	ND	1	5	500
Sol. Chromium (Cr)	ND	ND	ND	2	5	60
Sol. Mercury (Hg)	ND	ND	ND	1	5	60
Sol. Arsenic (As)	ND	ND	ND	2	5	25

Remark: Sol. = Soluble

> 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 items are not included in the TISI Accreditation

Tested components:

(6) =	LACQUER COATING ON WOOD	Refer	BKKH17008950
(7) =	ORANGE COATING ON WOOD	Refer	BKKH17008950
(8) =	BLUE COATING ON WOOD (8950)	Refer	BKKH17008950

Note: The results of soluble toxic elements were adjusted by subtracting the analytical correction factor.



Bangkok 10800 Thailand



The results relate only to the item tested.



Number: BKKH17008330

Test conducted:

Heavy Elements Analysis

As per clause 4.3.5.2(2)(b) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11 and F963-16^A, acid extraction method was used and heavy elements migration content were determined by ICP-OES analysis.

			Result mg/kg	LOD mg/kg	LOQ mg/kg	Limit mg/kg
	(9)	(10)	(11)			
Sol. Barium (Ba)	ND	ND	ND	1	5	1000
Sol. Lead (Pb)	ND	ND	ND	1	5	90
Sol. Cadmium (Cd)	ND	ND	ND	1	5	75
Sol. Antimony (Sb)	ND	ND	ND	2	5	60
Sol. Selenium (Se)	ND	ND	ND	1	5	500
Sol. Chromium (Cr)	ND	ND	ND	2	5	60
Sol. Mercury (Hg)	ND	ND	ND	1	5	60
Sol. Arsenic (As)	ND	ND	ND	2	5	25

Remark: Sol. = Soluble

> 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 items are not included in the TISI Accreditation

Tested components:

(9) =	Solid Wood	Refer	BKKH17000142
(10) =	SAWDUST WOOD	Refer	BKKH17008452
(11) =	WHITE PLASTIC JOINT	Refer	BKKH17008825

Note: The results of soluble toxic elements were adjusted by subtracting the analytical correction factor.





The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

Test conducted:

Total Lead (Pb) Content

As per clause 4.3.5.1(1) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11 and F963-16 $^{\blacktriangle}$, test method CPSC-CH-E1003-09.1:2011 was used and total Lead content was determined by ICP-OES analysis.

(I) Surface coating

Tested Component	<u>Result</u>	LOD	LOQ	<u>Limit</u>
rested Component	mg/kg	(mg/kg)	(mg/kg)	<u>(mg/kg)</u>
(1)	<13	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	<13	2	13	90
(5)	ND	2	13	90
(6)	ND	2	13	90
(7)	ND	2	13	90
(8)	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	BKKH16014215
(2) =	BLUE COATING ON WOOD	Refer	BKKH16015744
(3) =	DARK GREEN COATING ON WOOD	Refer	BKKH16015744
(4) =	GREEN COATING ON WOOD	Refer	BKKH16016102S2
(5) =	YELLOW COATING ON WOOD (8950)	Refer	BKKH17008950
(6) =	LACQUER COATING ON WOOD	Refer	BKKH17008950
(7) =	ORANGE COATING ON WOOD	Refer	BKKH17008950
(8) =	BLUE COATING ON WOOD (8950)	Refer	BKKH17008950



^{▲ =} Tested items are not included in the TISI Accreditation



The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

Test conducted:

Total Lead (Pb) Content

As per clause 4.3.5.2(2)(a) of the ASTM Standard Consumer Safety Specification on Toy Safety F963-11 and F963-16, test method CPSC-CH-E1001-08.3:2012, CPSC-CH-E1002-08.3:2012 were used and total Lead content was determined by ICP-OES analysis.

(II) Non-surface coating

Tested Component	<u>Result</u>	<u>LOD</u> <u>LOQ</u>	<u>Limit</u>
	mg/kg	(mg/kg) (mg/kg)	(mg/kg)
(9)	ND	1 13	100
(10)	<13	1 13	100
(11)	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) <= Less than

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(9) =	Solid Wood	Refer	BKKH17000142
(10) =	SAWDUST WOOD	Refer	BKKH17008452
(11) =	WHITE PLASTIC JOINT	Refer	BKKH17008825



The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

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 %	<u>Limit %</u>
(1)	<0.0013	0.0002	0.0013	0.009
(2)	ND	0.0002	0.0013	0.009
(3)	ND	0.0002	0.0013	0.009
(4)	<0.0013	0.0002	0.0013	0.009
(5)	ND	0.0002	0.0013	0.009
(6)	ND	0.0002	0.0013	0.009
(7)	ND	0.0002	0.0013	0.009
(8)	ND	0.0002	0.0013	0.009

Remark: % = percentage < = Less than

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD) <= Less than

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(1) =	YELLOW COATING ON WOOD	Refer	BKKH16014215
(2) =	BLUE COATING ON WOOD	Refer	BKKH16015744
(3) =	DARK GREEN COATING ON WOOD	Refer	BKKH16015744
(4) =	GREEN COATING ON WOOD	Refer	BKKH16016102S2
(5) =	YELLOW COATING ON WOOD (8950)	Refer	BKKH17008950
(6) =	LACQUER COATING ON WOOD	Refer	BKKH17008950
(7) =	ORANGE COATING ON WOOD	Refer	BKKH17008950
(8) =	BLUE COATING ON WOOD (8950)	Refer	BKKH17008950





The results relate only to the item tested.



Number: BKKH17008330

Test conducted:

Total lead (Pb) content in surface coating 5

> 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.

T <u>ested component</u>	<u>Result</u>	<u>LOD</u>	LOQ	<u>Limit mg/kg</u>
	mg/kg	mg/kg	mg/kg	
(1)	<13	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	<13	2	13	90
(5)	ND	2	13	90
(6)	ND	2	13	90
(7)	ND	2	13	90
(8)	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	BKKH16014215
(2) =	BLUE COATING ON WOOD	Refer	BKKH16015744
(3) =	DARK GREEN COATING ON WOOD	Refer	BKKH16015744
(4) =	GREEN COATING ON WOOD	Refer	BKKH16016102S2
(5) =	YELLOW COATING ON WOOD (8950)	Refer	BKKH17008950
(6) =	LACQUER COATING ON WOOD	Refer	BKKH17008950
(7) =	ORANGE COATING ON WOOD	Refer	BKKH17008950
(8) =	BLUE COATING ON WOOD (8950)	Refer	BKKH17008950





The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

Test conducted:

Total lead (Pb) content in substrate material- non-metal children's product ▲
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-E1002-08.3:2012 method was used and total lead content was determined by Inductively Couple Plasma Optical Emission Spectrometry.

Tested component	<u>Result</u>	<u>LOD</u> <u>LOQ</u>	<u>Limit mg/kg</u>
	mg/kg	mg/kg mg/kg	
(1)	ND	1 13	100
(2)	<13	1 13	100
(3)	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) <= Less than

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(1) =	Solid Wood	Refer	BKKH17000142
(2) =	SAWDUST WOOD	Refer	BKKH17008452
(3) =	WHITE PLASTIC JOINT	Refer	BKKH17008825



The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

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.

			Result			LOD	LOQ	Limit	NPR
			(%, w/w)			(%, w/w)	(%, w/w)	(%, w/w)	(%, w/w)
	(1)	(2)	(3)	(4)	(5)				
Dibutyl Phthalate (DBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	0.1
Diethyl hexyl Phthalate (DEHP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	0.1
Benzyl butyl Phthalate (BBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1	0.1
Di-n-octyl Phthalate (DNOP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	
Di-iso-decyl Phthalate (DIDP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1	
Di-isobutyl phthalate (DIBP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Di-n-pentyl phthalate (DnPP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Di-n-hexyl phthalate (DnHP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Di-cyclohexyl phthalate (DCHP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Diisooctyl phthalate (DIOP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		

Remark: The above limit was quoted according to US Consumer Product Safety Improvement Act 2008 for prohibition on sale of certain products containing specified phthalates.

The Phthalate no.7-11 are not included in US Consumer Product Safety Improvement Act 2008 and 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	BKKH16014215
(2) =	BLUE COATING ON WOOD	Refer	BKKH16015744
(3) =	DARK GREEN COATING ON WOOD	Refer	BKKH16015744
(4) =	GREEN COATING ON WOOD	Refer	BKKH16016102S2
(5) =	SAWDUST WOOD	Refer	BKKH17008452





The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

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.

			Result			LOD	LOQ	Limit	NPR
			(%, w/w)			(%, w/w)	(%, w/w)	(%, w/w)	(%, w/w)
	(6)	(7)	(8)	(9)	(10)				
Dibutyl Phthalate (DBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	0.1
Diethyl hexyl Phthalate (DEHP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	0.1
Benzyl butyl Phthalate (BBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1	0.1
Di-n-octyl Phthalate (DNOP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1	
Di-iso-decyl Phthalate (DIDP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1	
Di-isobutyl phthalate (DIBP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Di-n-pentyl phthalate (DnPP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Di-n-hexyl phthalate (DnHP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Di-cyclohexyl phthalate (DCHP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		0.1
Diisooctyl phthalate (DIOP) ▲	ND	ND	ND	ND	ND	0.0015	0.009		

Remark: The above limit was quoted according to US Consumer Product Safety Improvement Act 2008 for prohibition on sale of certain products containing specified phthalates.

The Phthalate no.7-11 are not included in US Consumer Product Safety Improvement Act 2008 and 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) =	YELLOW COATING ON WOOD (8950)	Refer	BKKH17008950
(7) =	LACQUER COATING ON WOOD	Refer	BKKH17008950
(8) =	ORANGE COATING ON WOOD	Refer	BKKH17008950
(9) =	BLUE COATING ON WOOD (8950)	Refer	BKKH17008950
(10) =	WHITE PLASTIC JOINT	Refer	BKKH17008825

(n)



The results relate only to the item tested.



Test conducted:

8 Phthalate content test

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

			Result			LOD	LOQ	Limit
			(%, w/w)			(%, w/w)	(%, w/w)	(%, w/w)
	(1)	(2)	(3)	(4)	(5)			
Dibutyl Phthalate (DBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Diethyl hexyl Phthalate (DEHP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Benzyl butyl Phthalate (BBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1
Dioctyl Phthalate (DNOP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Di-iso-decyl Phthalate (DIDP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1
Di-n-hexyl Phthalate (DnHP)	ND	ND	ND	ND	ND	0.0015	0.003	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	BKKH16014215
(2) =	BLUE COATING ON WOOD	Refer	BKKH16015744
(3) =	DARK GREEN COATING ON WOOD	Refer	BKKH16015744
(4) =	GREEN COATING ON WOOD	Refer	BKKH16016102S2
(5) =	SAWDUST WOOD	Refer	BKKH17008452



Bangkok 10800 Thailand



The results relate only to the item tested.



Number: BKKH17008330

Test conducted:

Phthalate content test

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

			Result			LOD	LOQ	Limit
			(%, w/w)			(%, w/w)(%, w/w)		(%, w/w)
	(6)	(7)	(8)	(9)	(10)			
Dibutyl Phthalate (DBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Diethyl hexyl Phthalate (DEHP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Benzyl butyl Phthalate (BBP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Di-iso-nonyl Phthalate (DINP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1
Dioctyl Phthalate (DNOP)	ND	ND	ND	ND	ND	0.0015	0.003	0.1
Di-iso-decyl Phthalate (DIDP)	ND	ND	ND	ND	ND	0.0015	0.009	0.1
Di-n-hexyl Phthalate (DnHP)	ND	ND	ND	ND	ND	0.0015	0.003	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

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

Tested components:

(6) =	YELLOW COATING ON WOOD (8950)	Refer	BKKH17008950
(7) =	LACQUER COATING ON WOOD	Refer	BKKH17008950
(8) =	ORANGE COATING ON WOOD	Refer	BKKH17008950
(9) =	BLUE COATING ON WOOD (8950)	Refer	BKKH17008950
(10) =	WHITE PLASTIC JOINT	Refer	BKKH17008825





The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

Test conducted:

9 Total Lead (Pb) Content ▲

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

Tested component	Result mg/kg	<u>LOD</u> mg/kg	<u>LOQ</u> mg/kg	<u>Limit</u> mg/kg
(1)	<13	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	<13	2	13	90
(5)	ND	2	13	90
(6)	ND	2	13	90
(7)	ND	2	13	90
(8)	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)

▲ = Tested items are not included in the TISI Accreditation

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:

(1)	=	YELLOW COATING ON WOOD	Refer	BKKH16014215
(2)	=	BLUE COATING ON WOOD	Refer	BKKH16015744
(3)	=	DARK GREEN COATING ON WOOD	Refer	BKKH16015744
(4)	=	GREEN COATING ON WOOD	Refer	BKKH16016102S2
(5)	=	YELLOW COATING ON WOOD (8950)	Refer	BKKH17008950
(6)	=	LACQUER COATING ON WOOD	Refer	BKKH17008950
(7)	=	ORANGE COATING ON WOOD	Refer	BKKH17008950
(8)	=	BLUE COATING ON WOOD (8950)	Refer	BKKH17008950

(N)



The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.



Number: BKKH17008330

Test conducted:

II Non-surface coating material (substrate)

Tested component	<u>Result</u>	LOD LOQ	<u>Limit</u>
	mg/kg	mg/kg mg/kg	mg/kg
(9)	ND	1 13	100
(10)	<13	1 13	100
(11)	ND	1 13	100

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: 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:

(9)	=	Solid Wood	Refer	BKKH17000142
(10)	=	SAWDUST WOOD	Refer	BKKH17008452
(11)	=	WHITE PLASTIC JOINT	Refer	BKKH17008825

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

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.

Page 19 of 19

