

NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002794

Date:

Mar 17, 2017

TEST REPORT

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

March 01, 2017

March 15, 2017

Client Information:

One (1) set of submitted sample said to be SORTING BOAT

Item Name: SORTING BOAT

Item Number: 5429



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

Ladtaka Wongwiboonporn Laboratory Manager

Hardlines Department

Intertek Testing Services (Thailand) Ltd.

1285/5 Prachachuen Road, Wong-Sawang, Bangsue, Bangkok 10800 Thailand

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Result

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

TEST REPORT

Conclusion:

<u>Tested samples</u> Submitted sample Standard

U.S. ASTM F963-16 for Physical and mechanical tests

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

other than textile materials

U.S. ASTM F963-11 for Heavy elements Test

Standard - U.S. CFR title 16

(CPSC regulations)

Part 1303 total Lead content

Standard

U.S. Consumer product safety improvement Act 2008(H.R. 4040) Title I, Section 101

For total lead content in surface coating

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)

U.S. Consumer product safety improvement

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

Requirement on phthalates

Phthalate Content Requirement base

on the California Proposition 65

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.

Intertek Testing Services (Thailand) Ltd.



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TEST REPORT

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		
Brown Coating On Wood	BKKH16006844	May 17,2016
RED COATING ON WOOD	BKKH16008147	Jun 09,2016
LACQUER COATING ON WOOD	BKKH16008147	Jun 09,2016
BLUE COATING ON WOOD	BKKH16008768	Jun 21,2016
YELLOW COATING ON WOOD	BKKH16008768	Jun 21,2016
VIOLET COATING ON WOOD	BKKH16008768	Jun 21,2016
LIGHT GREEN COATING ON WOOD	BKKH16015744	Nov 07,2016
Orange Coating On Wood	BKKH16016212	Nov 17,2016
Solid Wood	BKKH17000142	Jan 10,2017
Lead in surface coating		
Brown Coating On Wood	BKKH16006844	May 17,2016
RED COATING ON WOOD	BKKH16008147	Jun 09,2016
LACQUER COATING ON WOOD	BKKH16008147	Jun 09,2016
BLUE COATING ON WOOD	BKKH16008768	Jun 21,2016
YELLOW COATING ON WOOD	BKKH16008768	Jun 21,2016
VIOLET COATING ON WOOD	BKKH16008768	Jun 21,2016
LIGHT GREEN COATING ON WOOD	BKKH16015744	Nov 07,2016
Orange Coating On Wood	BKKH16016212	Nov 17,2016
Lead in substrate		
Solid Wood	BKKH17000142	Jan 10,2017
Phthalate content		
Brown Coating On Wood	BKKH16006844	May 17,2016
RED COATING ON WOOD	BKKH16008147	Jun 09,2016
LACQUER COATING ON WOOD	BKKH16008147	Jun 09,2016
BLUE COATING ON WOOD	BKKH16008768	Jun 21,2016
YELLOW COATING ON WOOD	BKKH16008768	Jun 21,2016
VIOLET COATING ON WOOD	BKKH16008768	Jun 21,2016
LIGHT GREEN COATING ON WOOD	BKKH16015744	Nov 07,2016
Orange Coating On Wood	BKKH16016212	Nov 17,2016



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TEST REPORT

Test conducted:

1 Physical And Mechanical Tests A

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

<u>Clause</u>	<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	NA
4.8	Projections	NA
4.9	Accessible points	Р
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	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



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TEST REPORT

Test conducted:

<u>Clause</u>	<u>Testing items</u>	Assessment
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 (toy and package)	Yes
	- address (packaging)	Yes

Remark: P = Pass NA = Not applicable

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.

▲ = Tested items are not included in the TISI Accreditation

Testing period: March 01, 2017 to March 03, 2017

2 Flammability Test⁴

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

Result: Did not ignite

▲ = Tested items are not included in the TISI Accreditation

Testing period: March 01, 2017 to March 03, 2017

Intertek Testing Services (Thailand) Ltd.

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TEST REPORT

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, acid extraction method was used and heavy elements migration content were determined by ICP-OES analysis.

			Result			<u>LOD</u>	<u>LOQ</u>	Limit mg/kg
			mg/kg			mg/kg	mg/kg	
	(1)	(2)	(3)	(4)	(5)			
Sol. Barium (Ba)	239	ND	ND	<4	<4	1	5	1000
Sol. Lead (Pb)	ND	ND	ND	ND	ND	1	5	90
Sol. Cadmium (Cd)	ND	ND	ND	ND	<4	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

< = 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 components:

(1) =	Brown Coating On Wood	Refer	BKKH16006844
(2) =	RED COATING ON WOOD	Refer	BKKH16008147
(3) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(5) =	YELLOW COATING ON WOOD	Refer	BKKH16008768

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



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TEST REPORT

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, acid extraction method was used and heavy elements migration content were determined by ICP-OES analysis.

			Result	LOD	<u>LOQ</u>	Limit mg/kg
			<u>mg/kg</u>	<u>mg/k</u>	g mg/kg	
	(6)	(7)	(8)			
Sol. Barium (Ba)	<4	<4	<4	1	5	1000
Sol. Lead (Pb)	<4	ND	ND	1	5	90
Sol. Cadmium (Cd)	ND	<4	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)	<4	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

< = 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 components:

(6) =	VIOLET COATING ON WOOD	Refer	BKKH16008768
(7) =	LIGHT GREEN COATING ON WOOD	Refer	BKKH16015744
(8) =	Orange Coating On Wood	Refer	BKKH16016212

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



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TEST REPORT

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, acid extraction method was used and heavy elements migration content were determined by ICP-OES analysis.

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

Remark: Sol. = Soluble

< = Less than

mg/kg = Milligram per kilogram = ppm = Parts per million

LOD = Limit of Detection LOQ = Limit of Quantitation

ND = Not detected (Less than LOD)

Tested components:

(9) = Solid Wood Refer BKKH17000142

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



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TEST REPORT

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, 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>	<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
rested Component	<u>mg/kg</u>	<u>(mg/kg)</u>	<u>(mg/kg)</u>	<u>(mg/kg)</u>
(1)	ND	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	ND	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 components:

(1) =	Brown Coating On Wood	Refer	BKKH16006844
(2) =	RED COATING ON WOOD	Refer	BKKH16008147
(3) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(5) =	YELLOW COATING ON WOOD	Refer	BKKH16008768
(6) =	VIOLET COATING ON WOOD	Refer	BKKH16008768
(7) =	LIGHT GREEN COATING ON WOOD	Refer	BKKH16015744
(8) =	Orange Coating On Wood	Refer	BKKH16016212



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TEST REPORT

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, 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>
	<u>mg/kg</u>	<u>(mg/kg)</u> (mg/kg)	<u>(mg/kg)</u>
(9)	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)

▲ = Tested items are not included in the TISI Accreditation

Tested components:

(9)	Solid Wood	Refer	BKKH17000142

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TEST REPORT

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	<u>LOQ</u>	<u>Limit</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
(1)	ND	0.0002	0.0013	0.009
(2)	ND	0.0002	0.0013	0.009
(3)	ND	0.0002	0.0013	0.009
(4)	ND	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</pre>

ND = Not detected (Less than LOD)

Tested items are not included in the TISI Accreditation

Tested components:

(1) =	Brown Coating On Wood	Refer	BKKH16006844
(2) =	RED COATING ON WOOD	Refer	BKKH16008147
(3) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(5) =	YELLOW COATING ON WOOD	Refer	BKKH16008768
(6) =	VIOLET COATING ON WOOD	Refer	BKKH16008768
(7) =	LIGHT GREEN COATING ON WOOD	Refer	BKKH16015744
(8) =	Orange Coating On Wood	Refer	BKKH16016212

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TEST REPORT

Test conducted:

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	<u>Result</u>	<u>LOD</u>	<u>LOQ</u>	<u>Limit mg/kg</u>
	<u>mg/kg</u>	<u>mg/kg</u>	mg/kg	
(1)	ND	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	ND	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 components:

Brown Coating On Wood	Refer BKKH16006844	
RED COATING ON WOOD	Refer BKKH16008147	
LACQUER COATING ON WOOD	Refer BKKH16008147	
BLUE COATING ON WOOD	Refer BKKH16008768	
YELLOW COATING ON WOOD	Refer BKKH16008768	
VIOLET COATING ON WOOD	Refer BKKH16008768	
LIGHT GREEN COATING ON WOOD	Refer BKKH16015744	
Orange Coating On Wood	Refer BKKH16016212	
	RED COATING ON WOOD LACQUER COATING ON WOOD BLUE COATING ON WOOD YELLOW COATING ON WOOD VIOLET COATING ON WOOD LIGHT GREEN COATING ON WOOD	RED COATING ON WOOD Refer BKKH16008147 LACQUER COATING ON WOOD Refer BKKH16008147 BLUE COATING ON WOOD Refer BKKH16008768 YELLOW COATING ON WOOD Refer BKKH16008768 VIOLET COATING ON WOOD Refer BKKH16008768 LIGHT GREEN COATING ON WOOD Refer BKKH16015744



NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002794

TEST REPORT

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 comp	<u>oonent</u>		Result	LOD	LOQ	Limit mg/kg
(1)			<u>mg/kg</u> ND	<u>mg/kg</u> 1	<u>mg/kg</u> 13	100
Remark:	< =	Less than				
	mg/kg =	Milligram per kilo	gram = ppm = Pa	rts per million		
	LOD =	Limit of Detection	า			
	LOQ =	Limit of Quantitat	tion			
	ND =	Not detected (Le	ss than LOD)			
	A =	Tested items are	not included in the	e TISI Accred	litation	
ested components:						

Tested components:

(1) = Solid Wood Refer BKKH17000142

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TEST REPORT

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			<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>	NPR
			(%, w/w)			(%, w/w)	(%, w/w)	<u>(%, w/w)</u>	(%, 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.

NPR = Notice of proposed rulemaking

< = Less

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) =	Brown Coating On Wood	Refer	BKKH16006844
(2) =	RED COATING ON WOOD	Refer	BKKH16008147
(3) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(5) =	YELLOW COATING ON WOOD	Refer	BKKH16008768

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TEST REPORT

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

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< = 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:

(6) =	VIOLET COATING ON WOOD	Refer	BKKH16008768
(7) =	LIGHT GREEN COATING ON WOOD	Refer	BKKH16015744
(8) =	Orange Coating On Wood	Refer	BKKH16016212



NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002794

TEST REPORT

Test conducted:

8 Phthalate content test 8

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

			Result			<u>LOD</u>	<u>LOQ</u>	<u>Limit</u>
			(%, 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: < = 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 The above limit was quoted according to the California Proposition 65

Tested components:

Note:

(1) =	Brown Coating On Wood	Refer	BKKH16006844
(2) =	RED COATING ON WOOD	Refer	BKKH16008147
(3) =	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4) =	BLUE COATING ON WOOD	Refer	BKKH16008768
(5) =	YELLOW COATING ON WOOD	Refer	BKKH16008768



NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002794

TEST REPORT

Test conducted:

Phthalate content test^{*}

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>	(%, w/w)	(%, w/w)
(6)	(7)	(8)			
ND	ND	ND	0.0015	0.003	0.1
ND	ND	ND	0.0015	0.003	0.1
ND	ND	ND	0.0015	0.003	0.1
ND	ND	ND	0.0015	0.009	0.1
ND	ND	ND	0.0015	0.003	0.1
ND	ND	ND	0.0015	0.009	0.1
ND	ND	ND	0.0015	0.003	0.1
	ND ND ND ND ND	ND N	(%, w/w) (6) (7) (8) ND	(%, w/w) (%, w/w) (6) (7) (8) ND ND 0.0015 ND ND 0.0015 ND ND ND 0.0015	(%, w/w) (%, w/w) (%, w/w) (6) (7) (8) ND ND ND 0.0015 0.003 ND ND ND 0.0015 0.003 ND ND ND 0.0015 0.003 ND ND ND 0.0015 0.009 ND ND ND 0.0015 0.003 ND ND ND 0.0015 0.009 ND ND ND 0.0015 0.009

Remark: < = 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 The above limit was quoted according to the California Proposition 65

Tested components:

Note:

(6) =	VIOLET COATING ON WOOD	Refer	BKKH16008768
(7) =	LIGHT GREEN COATING ON WOOD	Refer	BKKH16015744
(8) =	Orange Coating On Wood	Refer	BKKH16016212



Nsc-Tisi-Tis 17025 TESTING 0417 Number: BKKH17002794

TEST REPORT

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	LOD	<u>LOQ</u>	<u>Limit</u>
	<u>mg/kg</u>	<u>mg/kg</u>	mg/kg	<u>mg/kg</u>
(1)	ND	2	13	90
(2)	ND	2	13	90
(3)	ND	2	13	90
(4)	ND	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)	= .	Brown Coating On Wood	Refer	BKKH16006844
(2)	=	RED COATING ON WOOD	Refer	BKKH16008147
(3)	=	LACQUER COATING ON WOOD	Refer	BKKH16008147
(4)	=	BLUE COATING ON WOOD	Refer	BKKH16008768
(5)	=	YELLOW COATING ON WOOD	Refer	BKKH16008768
(6)	=	VIOLET COATING ON WOOD	Refer	BKKH16008768
(7)	=	LIGHT GREEN COATING ON WOOD	Refer	BKKH16015744
(8)	=	Orange Coating On Wood	Refer	BKKH16016212

Intertek Testing Services (Thailand) Ltd.

1285/5 Prachachuen Road, Wong-Sawang, Bangsue, Bangkok 10800 Thailand

Tel.: (662) 837-2999 Fax: (662) 837-2936 E-mail Address: tfh.thailand@intertek.com



NSC-TISI-TIS 17025 TESTING 0417 Number: BKKH17002794

TEST REPORT

Test conducted:

Non-surface coating material (substrate)

 Tested component
 Result mg/kg
 LOD LOQ mg/kg
 Limit mg/kg

 (9)
 ND
 1
 13
 100

Remark: < = Less than

mg/kg = Milligram per kilogram = 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

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

`*/KS/NK

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