intertek
Total Quality. Assured.

TEST REPORT

The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.

NSC-TISI-TIS 17025
TESTING 0417

Number: BKKH20005470

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

Issued Date: Jul 20, 2020

Sample description:

Quantity of sample:	One (1) set
Sample description:	Wooden toy
Date sample received:	May 20, 2020
Date Information received:	July 20, 2020

Client Information:

One (1) set of submitted sample said to be CIRCLE MATCHING PUZZLE

Item Name:	CIRCLE MATCHING PUZZLE
Item Number:	5387
Label Age grading:	12m+
Country of origin:	Thailand

Tests conducted:

As requested by the applicant, for details please refer to attached pages.

****

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

Ladtaka W.

Ladtaka Wongwiboonporn
Laboratory Manager
Hardlines Department

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

Conclusion:

Tested samples	Standard	Result
Submitted samples	EN71-1 : 2014+A1:2018 Mechanical and physical properties	Pass
	EN71-2 : 2011 + A1 : 2014 Flammability test	Pass
	EN71-3 : 2019 Migration of certain elements	Pass**

****

Note:

**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.	Date
SOLID WOOD	BKKH19008023S1	Jul 15, 2019
BLUE COATING ON WOOD (No.1)	BKKH19008028S1	Jul 18, 2019
DARK BLUE COATING ON WOOD	BKKH19008029S1	Jul 18, 2019
BLUE COATING ON WOOD (No.4)	BKKH19008028S1	Jul 18, 2019
SAWDUST WOOD	BKKH19008023S1	Jul 15, 2019

****

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

TEST REPORT

The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.

Test conducted:

1 Mechanical and Physical Test

Test standard: European Standard on Safety of toys EN71-1 : 2014 + A1 : 2018

Age group for testing : For age over 12 months.

The submitted samples were undergone the following abuse tests:

Clause	Testing items
8.3	Torque test (0.34 Nm)
8.4.2.1	Tension test (90 N)
8.5	Drop test (850 mm x 5)
8.7	Impact test (1 kg)
8.8	Compression test (110 N)
8.9	Soaking test

Clause	Requirements	Assessment
4	General requirements	
4.1	Material cleanliness	P
4.2	Assembly	NA
4.3	Flexible plastic sheeting	NA
4.4	Toy bags	NA
4.5	Glass	NA
4.6	Expanding materials	NA
4.7	Edges	NA
4.8	Points and metallic wires	P
4.9	Protruding parts	NA
4.10	Parts moving against each other	NA
4.11	Mouth actuated toys and other toys intended to be put in the mouth	NA
4.12	Balloons	NA
4.13▲	Cords of toy kites and other flying toys	NA

****

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

Test conducted:

Clause	Requirements	Assessment
4.14	Enclosures	NA
4.15	Toys intended to bear the mass of a child	NA
4.16	Heavy immobile toys	NA
4.17	Projectiles	NA
4.18	Aquatic toys and inflatable toys	NA
4.19	Percussion caps specifically designed for use in toys and toys using percussion caps	NA
4.20	Acoustics	NA
4.21▲	Toys containing non-electrical heat source	NA
4.22	Small balls	NA
4.23	Magnets	NA
4.24▲	Yo-yo balls	NA
4.25	Toys attached to food	NA
4.26▲	Toy Disguise Costumes	NA
4.27▲	Flying toys	NA
5	Toys intended for children under 36 months	
5.1	General requirements for children under 36 months	P
5.2	Soft-filled toys and soft-filled parts of a toy	NA
5.3	Plastic sheeting	NA
5.4	Cords, chains and electrical cables in toys	NA
5.5	Liquid filled toys	NA
5.6	Speed limitation of electrically-driven ride-on toys	NA
5.7	Glass and porcelain	NA
5.8	Shape and size of certain toys	NA
5.9	Toys comprising monofilament fibres	NA
5.10	Small balls	NA
5.11	Play figures	NA
5.12	Hemispheric-shaped toys	NA
5.13	Suction cups	NA
5.14	Straps intended to be worn fully or partially around the neck	NA
5.15	Sledges with cords for pulling	NA
6	Packaging	NA
7	Warnings, markings and instructions for use	

****

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

TEST REPORT

The report shall not be reproduced without written approval from Intertek

The results relate only to the item tested.

Test conducted:

Clause	Requirements	Assessment
7.1	General	NA
7.2	Toys not intended for children under 36 months	NA
7.3	Latex balloons	NA
7.4	Aquatic toys	NA
7.5	Functional toys	NA
7.6	Hazardous sharp functional edges and points	NA
7.7	Projectiles	NA
7.8	Imitation protective masks and helmets	NA
7.9	Toy kites	NA
7.10	Roller skates, inlineskates and skateboards and certain other ride-on toys	NA
7.11	Toys intended to be attached to strung across a cradle, cot, or perambulator	NA
7.12	Liquid-filled teethers	NA
7.13	Percussion caps specifically designed for use in toys	NA
7.14	Acoustics	NA
7.15	Toy bicycles	NA
7.16	Toys intended to bear the mass of a child	NA
7.17	Toys comprising monofilament fibres	NA
7.18	Toy scooters	NA
7.19	Rocking horses and similar toys	NA
7.20	Magnetic/electrical experimental sets	NA
7.21	Toys with electrical cables exceeding 300 mm in length	NA
7.22	Toys with cords or chains intended for children of 18 months and	NA
	over but under 36 months	NA
7.23	Toys intended to be attached to a cradle, cot or perambulator	NA
7.24	Sledges with cords for pulling	NA
7.25	Flying toys	NA
7.26	Improvised projectiles	NA

Abbreviation : P = Pass NA = Not Applicable

Remark: ▲ = Tested items are not included in the TISI Accreditation

****

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

Test conducted:

Below are additional information according to the Toy Safety Directive 2009/48/EC requirement. These information also appears as a note within the EN71 but are not standard requirements and not accredited:

Marking

The manufacturer's and importer's name, registered trade name or registered trade mark, the address and type, batch, serial or model number or other element allowing their identification shall be indicated on the product itself. In addition, toys or packagings shall also bear the CE-marking.

After checking, it was found that

	Toy	Packaging
Manufacturer's name	Present	Present
Manufacturer's address	Absent	Present
Importer's name	Absent	Absent
Importer's address	Absent	Absent
Product identification code	Present	Present
CE-marking	Absent	Present

Cleaning instruction

A toy intended for use by children under 36 months must be designed and manufactured in such a way that it can be cleaned. The toy shall fulfill the safety requirements also after having been cleaned in accordance with this point and the manufacturer's instructions. The manufacturer should, if applicable, provided instructions on how the toy has to be cleaned. After checking, the cleaning instruction was not found on the submitted samples.

Testing period : May 22, 2020 to July 08, 2020

****

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

Test conducted:

2 Flammability Test

As per European Standard on Safety of Toys EN71-2 : 2011 + A1 : 2014.

Clause	Testing items	Assessment
4.1	General	P
4.2	Toys to be worn on the head	NA
4.3	Toy disguise costumes and toys intended to be worn by a child in play	NA
4.4	Toys intended to be entered by a child	NA
4.5	Soft filled toys	NA

Remark : P = Pass NA = Not applicable

Testing period : May 22, 2020 to July 08, 2020

****

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

Test conducted:

3 19 Toxic elements migration test▲

(A) Test result

With reference to EN 71-3: 2019. Determine by ICP-MS, LC-ICP-MS and GC-MS.

Category (III): Scraped-off toy material

Element (Soluble)	Result (mg/kg)					LOD	LOQ	Limit
	(1)	(2)	(3)	(4)	(5)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminium (Al)	ND	1882	2680	773	280	0.5	5	70000
Antimony (Sb)	ND	ND	ND	ND	ND	0.2	5	560
Arsenic (As)	ND	ND	<0.1	0.5	ND	0.01	0.1	47
Barium (Ba)	<5	ND	<5	ND	ND	0.1	5	18750
Boron (B)	ND	ND	ND	<5	16	0.01	5	15000
Cadmium (Cd)	ND	<0.1	<0.1	ND	<0.1	0.01	0.1	17
Chromium (Cr) Δ	0.138	0.575	0.356	0.327	0.121	0.01	0.04	-
Chromium (III) (Cr III)	0.138	0.575	0.356	0.327	0.121	-	-	460
Chromium (VI) (Cr VI)	<0.053#(S)	<0.053#(S)	<0.053#(S)	<0.053#(S)	<0.053#(S)	-	0.053	0.053
Cobalt (Co)	ND	ND	ND	ND	ND	0.01	1	130
Copper (Cu)	ND	<5	ND	ND	ND	0.5	5	7700
Lead (Pb)	<1	ND	<1	ND	1	0.1	1	23
Manganese (Mn)	39	16	12	11	38	0.01	5	15000
Mercury (Hg)	ND	ND	ND	ND	ND	0.2	1	94
Nickel (Ni)	ND	ND	ND	ND	ND	0.1	5	930
Selenium (Se)	ND	ND	ND	ND	ND	0.1	5	460
Strontium (Sr)	10	ND	ND	ND	7	0.1	5	56000
Tin (Sn) ΔΔ	ND	ND	ND	ND	ND	0.1	1	180000
Organic tin	NC	NC	NC	NC	NC	1	3	12
Zinc (Zn)	<5	8	12	15	23	0.5	5	46000

****

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

Test conducted:

Remark: mg/kg = Milligram per kilogram = ppm
< = Less than
NC = Not conducted
ND = Not detected (Less than LOD)
LOD = Limit of Detection
LOQ = Limit of Quantitation
(S) = Test item has been tested by subcontractor approved by Intertek.
▲ = Tested items are not included in the TISI Accreditation

- The new lead migration limit [(2.0mg/kg for Category (I), 0.5mg/kg for category (II) and 23 mg/kg for Category (III)] was quoted from directive (EU) 2017/738 amending 2009/48/EC effective from 28 October 2018.

- The new chromium (VI) migration limit (0.053mg/kg) for Category (III) was quoted from directive (EU) Directive 2018/725 amending 2009/48/EC effective from 18 November 2019.

Δ= If the migration of total Chromium is below the maximum limit for Chromium (VI), it can be inferred that the material complies with the requirements for both Chromium (III) and Chromium (VI).

ΔΔ = If the migration of total Tin is below the maximum limit for Organic Tin, it can be inferred that the material complies with the requirements for Organic Tin.

- Organic tin test result was expressed as tributyl tin.

- As per EC decision 2013/492/EU of 7 October 2013 and in accordance with Court's Order of 15 May 2013 in case T-198/12R, the European Commission authorizes that the national provisions notified by the Federal Republic of Germany concerning limit values for Antimony(Sb)(60mg/kg), Arsenic (As)(25mg/kg), Mercury (Hg)(60mg/kg), Barium (Ba)(1000mg/kg) and Lead (Pb)(90mg/kg) in toys be maintained beyond 20 July 2013.

= Confirmation of Chromium (VI) test was performed on the tested component. And the reported value of migration of Chromium (III) = migration value of total Chromium – migration value of Chromium(VI).

* = Confirmation test was performed on the tested component. The reported value was the sum of the migration values of Methyl tin, Butyl tin, Dibutyl tin, Tributyl tin, Tetrabutyl tin, n-Octyl tin, Di-n-octyl tin, Di-n-propyl tin, Diphenyl tin and Triphenyl tin after converted to Tributyl tin by calculation.

****

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

Test conducted:

Tested components:

		Report	Date
(1) SOLID WOOD	REFER	BKKH19008023S1	Jul 15, 2019
(2) BLUE COATING ON WOOD (No.1)	REFER	BKKH19008028S1	Jul 18, 2019
(3) DARK BLUE COATING ON WOOD	REFER	BKKH19008029S1	Jul 18, 2019
(4) BLUE COATING ON WOOD (No.4)	REFER	BKKH19008028S1	Jul 18, 2019
(5) SAWDUST WOOD	REFER	BKKH19008023S1	Jul 15, 2019

Note:

1. The toxic elements of EN71-3 was not conducted on the above components of samples. Applicant claimed the components were tested on our previous test report.
2. According to European standard on safety of toys EN71-3. As received, the test portion of the components are less than 10 mg, therefore such components were not tested for toxic.

****

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com

Test conducted:

(B) Categories of various toy materials

Category I: dry, brittle, powder like or pliable

Solid toy material from which powder-like material is released during playing and semi-solid materials that may also leave residues on the hands during play. the material can be ingested. contamination of the hands with the material may contribute to the oral exposure of the material. (e.g. the cores of colouring pencils, chalk, crayons, modelling clays and plaster).

Category II: Liquid or Sticky

Fluid or viscous toy material, which can be ingested or to which dermal exposure may occur during playing. (e.g. liquid paints, finger paints, liquid ink in pens, glue sticks, slimes, bubble solution).

Category III: Scraped-off

Solid toy material with or without a coating, which can be ingested as a result of biting, tooth scraping, sucking or licking. (e.g. coatings, lacquers, plastics, paper, textiles, glass, ceramic, metallic, wooden, bone , leather and other materials).

Comment:

When tested as specified, the results of the tested components MET the 19 toxic elements limits of the European Council Directive 2009/48/EC and amendment 2012/7/EU on the Safety of Toys.

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.

Intertek Testing Services (Thailand) Ltd.
1285/5 Prachachuen Road,
Wong-Sawang, Bangsue,
Bangkok 10800 Thailand
Tel + 662 765 2999
Fax + 662 765 2936
www.intertek.com