

TEST REPORT

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

Number: BKKH18016221

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

Date: Mar 25, 2019

Sample description:

| | |
|----------------------------|-------------------|
| Quantity of sample: | One (1) set |
| Sample description: | Wooden toy |
| Date sample received: | November 30, 2018 |
| Date Information received: | February 22, 2019 |

Client Information:

One (1) set of submitted sample said to be SENSORY TUMBLING

Item Name: SENSORY TUMBLING
Item Number: 5258



BKKH18016221

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 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: BKKH18016221

Conclusion:

| <u>Tested samples</u> | <u>Standard</u> | <u>Result</u> |
|-----------------------|--|---------------|
| Submitted samples | EN71-1 : 2014+A1:2018 Mechanical and physical properties | Pass |
| | EN71-2 : 2011 + A1 : 2014 Flammability test | Pass |
| | EN71-3 : 2013 + A2 : 2017 and EN71-3 : 2013 + A3 : 2018 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.

| <u>Components</u> | <u>Report No.</u> | <u>Date</u> |
|-------------------------|-------------------|--------------|
| SOLID WOOD | BKKH18008754 | Jul 10, 2018 |
| BROWN COATING ON WOOD | BKKH18008771 | Jul 12, 2018 |
| LACQUER COATING ON WOOD | BKKH18008771 | Jul 12, 2018 |
| ORANGE COATING ON WOOD | BKKH18010022 | Aug 03, 2018 |
| BLUE COATING ON WOOD | BKKH18010283 | Aug 06, 2018 |
| CLEAR ACRYLIC | BKKH18009122 | Jul 13, 2018 |
| PC MIRROR | BKKH18009793 | Jul 23, 2018 |
| YELLOW COATING ON WOOD | BKKH18011942S1 | Oct 01, 2018 |
| WHITE FABRIC (MOHAIR) | BKKH18011946S1 | Oct 22, 2018 |



TEST REPORT

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

Number: BKKH18016221

Test conducted:

1 Mechanical and Physical Test[▲]

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

Applicant's specified testing age : For age over 6 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 | P |
| 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 |
| 4.1 | Cords of toy kites and other flying toys | NA |



TEST REPORT

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

Number: BKKH18016221

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 | P*1 |
| 4.21 | Toys containing non-electrical heat source | NA |
| 4.22 | Small balls | NA |
| 4.23 | Magnets | NA |
| 4.2 | 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 | P |
| 5.9 | Toys comprising monofilament fibres | NA |
| 5.10 | Small balls | P |
| 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 | |



TEST REPORT

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

Number: BKKH18016221

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 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



TEST REPORT

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



Number: BKKH18016221

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 : November 30, 2018 to December 18, 2018



TEST REPORT

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

Number: BKKH18016221

Test conducted:

*1 Sound producing toys test

Test Standard : European Standard on Safety of toys EN71-1 : 2014+A1:2018, clause 4.20 for Acoustics.

| Section | Test item | Assessment |
|-----------|---|------------|
| 4.20.2.1 | Close-to-the-ear toys | NA |
| 4.20.2.2 | Toys that can be confused with a close-to-the-ear toy | NA |
| 4.20.2.3 | Table-top toys | NA |
| 4.20.2.4 | Hand-held toys | NA |
| 4.20.2.5 | Toys using headphones or earphones | NA |
| 4.20.2.6 | Rattles | P |
| 4.20.2.7 | Squeeze toys | NA |
| 4.20.2.8 | Pull-along or push toys | NA |
| 4.20.2.9 | Percussion toys | NA |
| 4.20.2.10 | Wind toys | NA |
| 4.20.2.11 | Cap-firing toys | NA |
| 4.20.2.12 | Voice toys | NA |

Remark : P = Pass NA = Not applicable

Measured data:

| Tested component | A weighted time-averaged emission sound pressure level (Aeq) | Limit (dB) |
|------------------|--|------------|
| Auditory | 68.7 | 85 |

| Tested component | C-weighted emission peak sound pressure level (Cpk) | Limit (dB) |
|------------------|---|------------|
| Auditory | 104.9 | 110 |

Testing period : November 30, 2018 to December 18, 2018



TEST REPORT

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



Number: BKKH18016221

Test conducted:

2 Flammability Test

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

| <u>Clause</u> | <u>Testing items</u> | <u>Assessment</u> |
|---------------|---|-------------------|
| 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 : November 30, 2018 to December 18, 2018



TEST REPORT

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

Number: BKKH18016221

Test conducted:

3 19 Toxic elements migration test[▲]

(A) Test result

With reference to EN 71-3: 2013 + A2 : 2017. Determined by ICP-MS, LC-ICP-MS and GC-MS.

Category (III): Scraped-off toy material

| Element (Soluble) | Result (mg/kg) | | | | | LOD (mg/kg) | LOQ (mg/kg) | Limit (mg/kg) |
|-------------------------|----------------|-------|-------|-------|-------|----------------|----------------|------------------|
| | (1) | (2) | (3) | (4) | (5) | | | |
| Aluminium (Al) | ND | 80 | 10 | 250 | 84 | 1 | 5 | 70000 |
| Antimony (Sb) | ND | ND | ND | ND | ND | 1 | 5 | 560 |
| Arsenic (As) | ND | ND | ND | ND | ND | 0.02 | 0.1 | 47 |
| Barium (Ba) | 7 | 572 | <5 | ND | ND | 1 | 5 | 18750 |
| Boron (B) | <5 | 11 | 35 | <5 | ND | 1 | 5 | 15000 |
| Cadmium (Cd) | ND | ND | ND | 0.9 | ND | 0.02 | 0.1 | 17 |
| Chromium (Cr) Δ | 0.033 | 0.201 | 0.168 | 0.245 | 0.088 | 0.001 | 0.005 | - |
| Chromium (III) (Cr III) | NC | 0.201 | NC | 0.245 | NC | - | - | 460 |
| Chromium (VI) (Cr VI) | NC | <0.2# | NC | <0.2# | NC | - | 0.2 | 0.2 |
| Cobalt (Co) | ND | ND | ND | ND | ND | 0.2 | 1 | 130 |
| Copper (Cu) | ND | ND | ND | <5 | ND | 1 | 5 | 7700 |
| Lead (Pb) | 2 | <1 | <1 | 1 | ND | 0.2 | 1 | 23 ^{▲▲} |
| Manganese (Mn) | 64 | 21 | 23 | 10 | ND | 1 | 5 | 15000 |
| Mercury (Hg) | ND | ND | ND | ND | ND | 0.2 | 1 | 94 |
| Nickel (Ni) | ND | ND | ND | ND | ND | 1 | 5 | 930 |
| Selenium (Se) | ND | ND | ND | ND | ND | 1 | 5 | 460 |
| Strontium (Sr) | 11 | <5 | 6 | ND | ND | 1 | 5 | 56000 |
| Tin (Sn) ΔΔ | ND | ND | ND | ND | ND | 0.2 | 1 | 180000 |
| Organic tin | NC | NC | NC | NC | NC | 1 | 3 | 12 |
| Zinc (Zn) | 19 | 15 | 26453 | 10 | 13 | 1 | 5 | 46000 |



TEST REPORT

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

Number: BKKH18016221

Test conducted:

19 Toxic elements migration test[▲]

(A) Test result

With reference to EN 71-3: 2013 + A2 : 2017. Determine by ICP-MS, LC-ICP-MS and GC-MS.

Category (III): Scraped-off toy material

| <u>Element (Soluble)</u> | <u>Result (mg/kg)</u> | | <u>LOD</u> | <u>LOQ</u> | <u>Limit</u> |
|--------------------------|-----------------------|------|------------|------------|------------------|
| | (6) | (7) | (mg/kg) | (mg/kg) | (mg/kg) |
| Aluminium (Al) | <5 | <5 | 1 | 5 | 70000 |
| Antimony (Sb) | 10 | ND | 1 | 5 | 560 |
| Arsenic (As) | ND | ND | 0.02 | 0.1 | 47 |
| Barium (Ba) | ND | ND | 1 | 5 | 18750 |
| Boron (B) | ND | ND | 1 | 5 | 15000 |
| Cadmium (Cd) | ND | ND | 0.02 | 0.1 | 17 |
| Chromium (Cr) Δ | 0.068 | 0.05 | 0.001 | 0.005 | - |
| Chromium (III) (Cr III) | NC | NC | - | - | 460 |
| Chromium (VI) (Cr VI) | NC | NC | - | - | 0.2 |
| Cobalt (Co) | ND | ND | 0.2 | 1 | 130 |
| Copper (Cu) | ND | ND | 1 | 5 | 7700 |
| Lead (Pb) | ND | ND | 0.2 | 1 | 23 ^{▲▲} |
| Manganese (Mn) | ND | ND | 1 | 5 | 15000 |
| Mercury (Hg) | ND | ND | 0.2 | 1 | 94 |
| Nickel (Ni) | ND | ND | 1 | 5 | 930 |
| Selenium (Se) | ND | ND | 1 | 5 | 460 |
| Strontium (Sr) | ND | ND | 1 | 5 | 56000 |
| Tin (Sn) ΔΔ | ND | 1 | 0.2 | 1 | 180000 |
| Organic tin | NC | NC | 1 | 3 | 12 |
| Zinc (Zn) | 12 | ND | 1 | 5 | 46000 |



TEST REPORT

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

Number: BKKH18016221

Test conducted:

19 Toxic elements migration test[▲]

(A) Test result

With reference to EN 71-3: 2013 + A3 : 2018. Determine by ICP-MS, LC-ICP-MS and GC-MS.

Category (III): Scraped-off toy material

| <u>Element (Soluble)</u> | <u>Result (mg/kg)</u> | | <u>LOD</u> | <u>LOQ</u> | <u>Limit</u> |
|--------------------------|-----------------------|-------|------------|------------|--------------|
| | (8) | (9) | (mg/kg) | (mg/kg) | (mg/kg) |
| Aluminium (Al) | 831 | ND | 1 | 5 | 70000 |
| Antimony (Sb) | ND | 10 | 1 | 5 | 560 |
| Arsenic (As) | 0.2 | ND | 0.02 | 0.1 | 47 |
| Barium (Ba) | ND | ND | 1 | 5 | 18750 |
| Boron (B) | ND | ND | 1 | 5 | 15000 |
| Cadmium (Cd) | ND | ND | 0.02 | 0.1 | 17 |
| Chromium (Cr) Δ | 0.688 | 0.052 | 0.001 | 0.005 | - |
| Chromium (III) (Cr III) | 0.636 | NC | - | - | 460 |
| Chromium (VI) (Cr VI) | 0.052# | NC | - | 0.04 | 0.053▲▲▲ |
| Cobalt (Co) | ND | ND | 0.2 | 1 | 130 |
| Copper (Cu) | ND | ND | 1 | 5 | 7700 |
| Lead (Pb) | 5 | ND | 0.2 | 1 | 23▲▲ |
| Manganese (Mn) | 9 | ND | 1 | 5 | 15000 |
| Mercury (Hg) | ND | ND | 0.2 | 1 | 94 |
| Nickel (Ni) | ND | ND | 1 | 5 | 930 |
| Selenium (Se) | ND | ND | 1 | 5 | 460 |
| Strontium (Sr) | ND | ND | 1 | 5 | 56000 |
| Tin (Sn) ΔΔ | ND | ND | 0.2 | 1 | 180000 |
| Organic tin | NC | NC | 1 | 3 | 12 |
| Zinc (Zn) | 119 | ND | 1 | 5 | 46000 |



TEST REPORT

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

Number: BKKH18016221

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
▲ = 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.

TEST REPORT

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



Number: BKKH18016221

Test conducted:

Tested components:

| | Report | Date |
|-----------------------------|----------------------|--------------|
| (1) SOLID WOOD | REFER BKKH18008754 | Jul 10, 2018 |
| (2) BROWN COATING ON WOOD | REFER BKKH18008771 | Jul 12, 2018 |
| (3) LACQUER COATING ON WOOD | REFER BKKH18008771 | Jul 12, 2018 |
| (4) ORANGE COATING ON WOOD | REFER BKKH18010022 | Aug 03, 2018 |
| (5) BLUE COATING ON WOOD | REFER BKKH18010283 | Aug 06, 2018 |
| (6) CLEAR ACRYLIC | REFER BKKH18009122 | Jul 13, 2018 |
| (7) PC MIRROR | REFER BKKH18009793 | Jul 23, 2018 |
| (8) YELLOW COATING ON WOOD | REFER BKKH18011942S1 | Oct 01, 2018 |
| (9) WHITE FABRIC (MOHAIR) | REFER BKKH18011946S1 | Oct 22, 2018 |

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.



TEST REPORT

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

Number: BKKH18016221

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.