# Test Report

No.: SPF20030111 Date: Jan. 17, 2020 Page 1 of 10

AO LE XING TOYS FACTORY
CHENGHAI DISTRICT, SHANTOU CITY, GUANGDONG PROVINCE, CHINA

The following samples were submitted and identified by/on behalf of client as:
Name of Product/Item : Toy series
Item No. : G096-BC, PT6119, 088, 089, 0810, 0812, G096-A, G096-B, G096-C, G097-A, G097-B, G097-C, 0810A, 0810B, 0810C, 697-A, 697-B, 697-C, 698A, 698B, 698C, 698D, 699A, 699B, 699C, 699D, 987-A, 789-B, 657, A661, A662, A663, A664, A665, A666, A667, A668, A669, A670, A671, A672, A673, A674, A675, A676, A677, A678, A679, A680, A681, A682, G098-A, G098-B, G098-C, G688-A, G688-B, G688-C, A689, A690, A691, A692, QQ-A, A694, A695, A696, A697, A698, A699, A700, A800, A900, A888, A999, 111, 222, ZQ001, ZQ002, ZQ003, ZQ004, LZ034.
Labeled Age Grading : 3+
Age Group Applied in Testing: 3+
Sample Received Date: Jan. 07, 2020
Testing Period: From Jan. 07, 2020 to Jan. 17, 2020

| Test Requested | Result |
|---|---|
| 1 For compliance with the American Standard on Safety of Toys: | |
| 1.1 U.S. ASTM F963- 17 – Physical and Mechanical Tests | PASS |
| 1.2 U.S. ASTM F963- 17 – Flammability Test of Materials | PASS |
| 1.3 U.S. ASTM F963- 17 – Toxic Elements Test | PASS |

Tested by : Alan
Wang CanLing, Alan

Inspected by : Wendy
Zhang WenXia, Wendy

Approved by : Jee
Zhang Feng, Jee
Lab Manager

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**Results:**

**1.1 Physical and Mechanical Tests**

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 1500.53 (b) | 4 X 3 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 |

| Section | Description | Result |
|---|---|---|
| 4 | Safety Requirements | |
| 4.1 | Material quality (by visual assessment) …… | Pass |
| 4.5 | Sound-producing toys…… | Pass |
| 4.6 | Small objects …… | Pass |
| 4.7 | Accessible edges …… | Pass |
| 4.8 | Projections …… | Pass |
| 4.9 | Accessible points …… | Pass |
| 4.10 | Wires or Rods …… | Pass |
| 4.11 | Nails and Fastens …… | Pass |
| 4.17 | Wheels, tires and axles…… | Pass |
| 4.18 | Holes, Clearance and Accessibility of mechanisms …… | Pass |
| 4.19 | Simulated Protective Devices …… | Pass |
| 4.21 | Projectile Toys …… | Pass |
| 4.25 | Battery – Operated Toys …… | NC |
| 4.34 | Balls …… | Pass |
| 4.38 | Magnets …… | Pass |
| 5 | Labeling Requirement | |
| 5.2 | Age Grading Labeling…… | Pass |
| 5.3 | Safety labeling requirements…… | Pass |
| 5.11 | Small objects, small balls, marbles, and balloons…… | Pass |
| 7 | Producer's marking | |
| 7.1 | Producer's marking…… | Pass |
| | Producer's marking – Address on toy or package (Remark: It is drawn to your attention that either a principal component of a toy or the package of a toy shall be marked with the name and address of the producer or the distributor.) | |

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**Note:**

- The submitted samples were undergone the tests in accordance with section 8.5 through section 8.19 and 8.21 through 8.30 on normal use, abuse and specific tests for different types of toys whichever is applicable.
- Only applicable clauses were shown.
- NC = Not Conducted (According to customer requirement, no evaluation of this clause)

**1.2 Flammability**

Test of Materials Other Than Textile Materials

As per section 4.2 of the ASTM standard consumer safety specification on toy safety F963-17.

| SAMPLE | IGNITION POINT | BURN LENGTH (INCH) | TIME (SEC) | BURN RATE (INCH/SEC) | LIMIT (INCH/SEC) |
|---|---|---|---|---|---|
| Basketball net | Edge | 4.1 | 60 | 0.068 | 0.10 |

All styles of the submitted toy samples and its accessories were tested, the above result only showed the most severe burn rate.

As per section 4.2 of the ASTM standard consumer safety specification on toy safety F963-17.

| SAMPLE | Sample No. | Time of flame spread (s) | Average burn time (s) | Requirement (s) | verdict |
|---|---|---|---|---|---|
| Green cloth | 1 | 22.12 | 22.24 | ≥3.5 | Pass |
| | 2 | 25.01 | | | |
| | 3 | 20.00 | | | |
| | 4 | 22.01 | | | |
| | 5 | 22.09 | | | |

All styles of the submitted toy samples and its accessories were tested, the above result only showed the most severe burn rate.

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### 1.3 Toxic Elements analysis

**ASTM F963-17. Clause 4.3.5.2 Heavy Elements in Substrate Materials**

Method: With reference to 8.3 in ASTM F963-17, including CPSC-CH-E1002-08.3.

Analysis was performed by inductively coupled plasma atomic emission spectrometer.

| Item \ Sample No. | Concentration (mg/kg) | | | | | | | | | Report Limit (mg/kg) | Limit (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| Total Lead (Pb) | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 10 | 100 |
| Soluble Lead (Pb) | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 5 | 90 |
| Soluble Barium (Ba) | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 50 | 1000 |
| Soluble Cadmium (Cd) | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 2 | 75 |
| Soluble Chromium (Cr) | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 2 | 60 |
| Soluble Mercury (Hg) | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 5 | 60 |
| Soluble Antimony (Sb) | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 5 | 60 |
| Soluble Selenium (Se) | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 5 | 500 |
| Soluble Arsenic (As) | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 2 | 25 |

**ASTM F963-17, Clause 4.3.5.1 Heavy Elements in Paint/Similar Surface Coating Materials**

Method: With reference to 8.3 in ASTM F963-17, including CPSC-CH-E1003-09.1

Analysis was performed by inductively coupled plasma atomic emission spectrometer.

| Item \ Sample No. | Concentration (mg/kg) | Report Limit (mg/kg) | Limit (mg/kg) |
|---|---|---|---|
| | 10 | | |
| Total Lead (Pb) | N.D. | 10 | 90 |
| Soluble Lead (Pb) | N.D. | 5 | 90 |
| Soluble Barium (Ba) | N.D. | 50 | 1000 |
| Soluble Cadmium (Cd) | N.D. | 2 | 75 |
| Soluble Chromium (Cr) | N.D. | 2 | 60 |
| Soluble Mercury (Hg) | N.D. | 5 | 60 |
| Soluble Antimony (Sb) | N.D. | 5 | 60 |
| Soluble Selenium (Se) | N.D. | 5 | 500 |
| Soluble Arsenic (As) | N.D. | 2 | 25 |

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**Note:**

Specimen Description

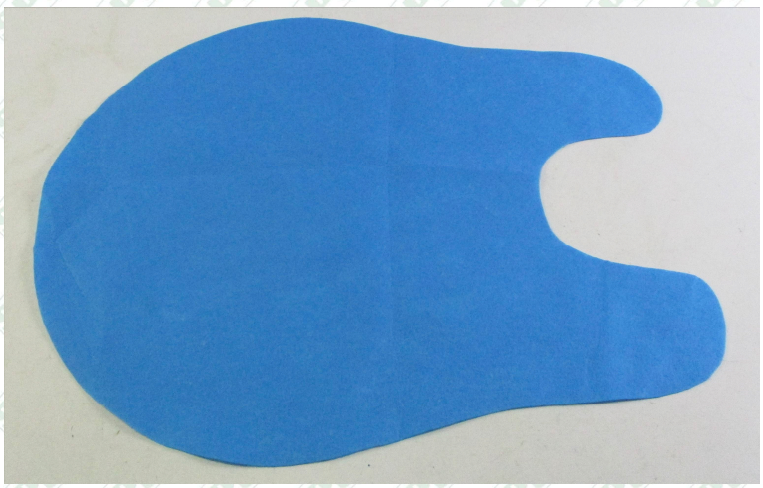
| Code | Specimen Name | Code | Specimen Name |
|---|---|---|---|
| 1 | Black plastic | 6 | Green plastic |
| 2 | Red plastic | 7 | Orange plastic |
| 3 | Blue plastic | 8 | Green cloth |
| 4 | Yellow plastic | 9 | Sticker |
| 5 | White plastic | 10 | Red coating (weight: 46.6mg) |

- It is requested by applicant, only the selected material(s) in the submitted sample was (were) tested.

-Unit: mg/kg = miligram per kilogram, N.D. = Not Detection(less than report limit)

-Results shown are of the adjusted analytical results.

**Sample photo:**



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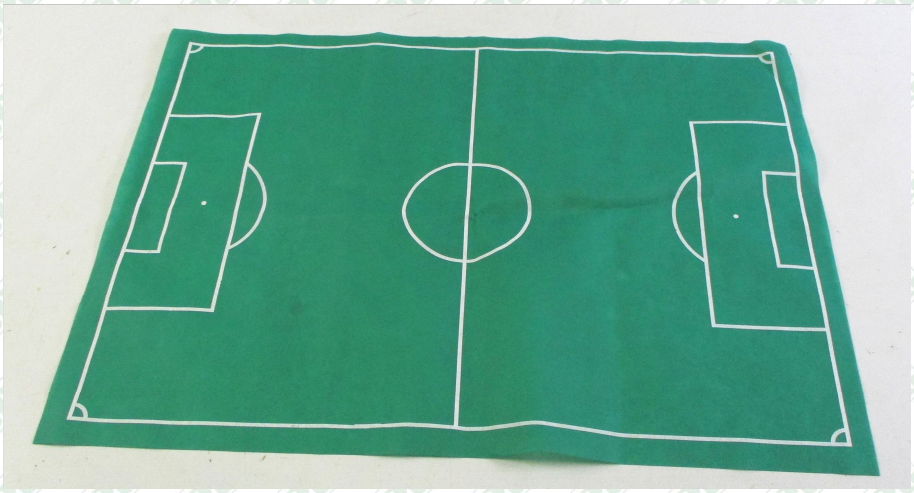

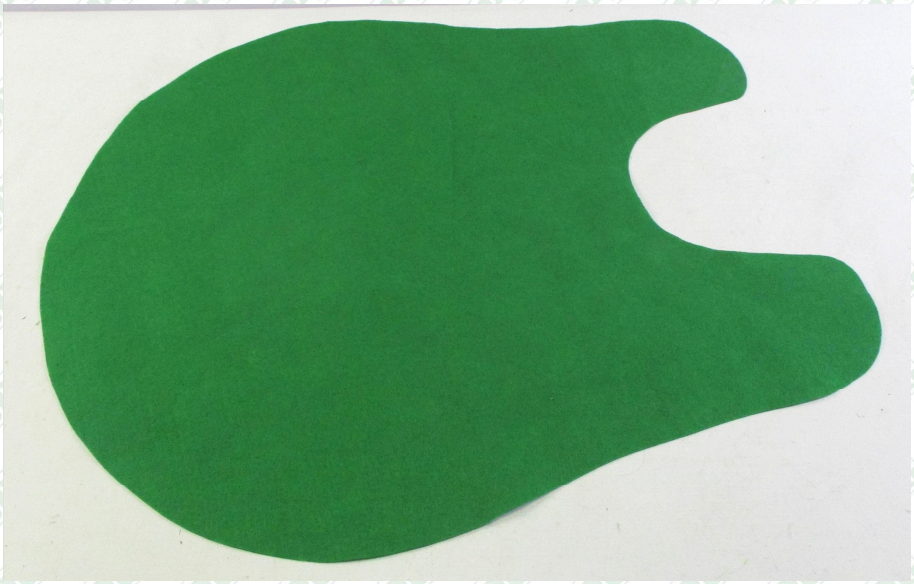

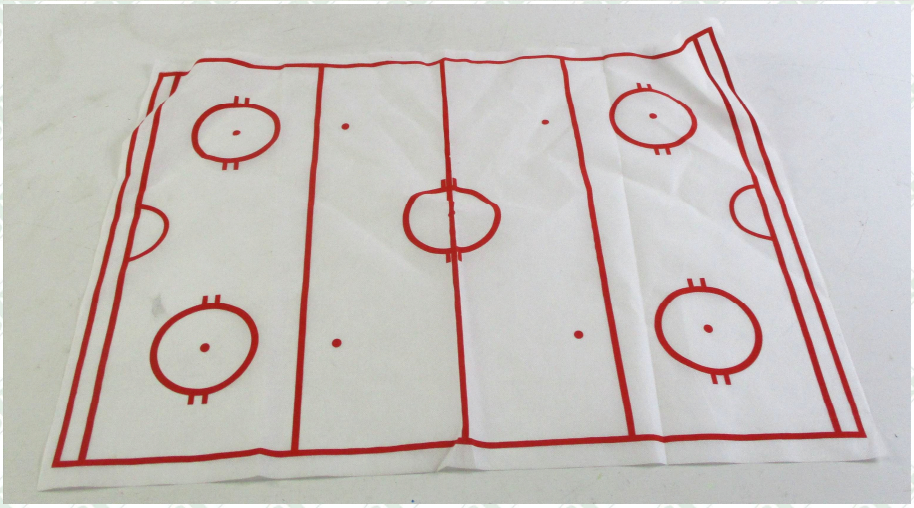

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***End of Report***

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