



## Test Report

**Date** : 2022-10-27  
**No.** : HP22100286

Page 1 of 79

**Applicant** : Yoshiritsu Co., Ltd.  
1563 Koshibe, Oyodo Yoshino, Nara 638-0803 Japan

Attn: Akie Kawai

**Description of Samples** : Four styles of submitted sample each in one set said to be :  
(A) LaQ BASIC 85 3D  
JAN Code: 4952907007919  
(B) LaQ BASIC 400 FIRST SET  
JAN Code: 4952907007940  
(C) LaQ ABC  
JAN Code: 4952907007971  
(D) LaQ BONUS SET 2022  
JAN Code: 4952907007896  
Labelled Age Grading : Age 5 years and up  
Appropriate Age Grade : Age 5 years and up  
Client's Requested Age Grading : Age 5 years and up  
Tested Age Grade : Age 5 years and up  
Country of Origin : Japan

**Date Samples Received** : 2022-10-12 and 2022-10-26

**Date Tested** : 2022-10-12 to 2022-10-26

WONG Wing-cheung, Benny  
Authorized Signatory



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27  
**No.** : HP22100286

Page 2 of 79

**Description of Samples :**    **Name of Parts:**  
LaQ RED No.1-7  
LaQ BLUE No.1-7  
LaQ YELLOW No.1-7  
LaQ GREEN No.1-7  
LaQ PINK No.1-7  
LaQ SKY BLUE No.1-7  
LaQ ORANGE No.1-7  
LaQ LIME No.1-7  
LaQ WHITE No.1-7  
LaQ BLACK No.1-7  
LaQ BROWN No.1-7  
LaQ GRAY No.1-7  
LaQ LAVENDER No.1-7  
LaQ CLEAR No.1-7  
LaQ CLEAR RED No.1-7  
LaQ CLEAR BLUE No.1-7  
LaQ CLEAR YELLOW No.1-7  
LaQ HAMACRON CONSTRUCTOR WHEEL  
LaQ HAMACRON CONSTRUCTOR SHAFT  
LaQ HAMACRON CONTRSUCTOR MIDDLE SIZE WHEEL  
LaQ HAMACRON CONSTRUCTOR LONG SHAFT  
LaQ HAMACRON CONSTRUCTOR MINI WHEEL  
LaQ HAMACRON CONSTRUCTOR MINI SHAFT  
LaQ BALL JOINT A and B  
LaQ CROSS PART  
LaQ PARTS REMOVER  
BLISTER CASE BLUE  
BLISTER CASE PINK  
PLASTIC CONTAINER (SMALL)  
PLASTIC CONATINER (LARGE)

A handwritten signature in black ink, appearing to read 'Wong Wing-cheung'.

WONG Wing-cheung, Benny  
Authorized Signatory



## Test Report

**Date** : 2022-10-27  
**No.** : HP22100286

Page 3 of 79

		<u>Test Item</u>	<u>Result</u>
<b>Test Requested</b>	:	I. EN71 : Part 1 : 2014 + A1 : 2018 - Physical and Mechanical Properties	Passed
		II. EN71 : Part 2 : 2020 - Flammability test	Passed
		III. EN 71-3:2019+A1:2021 - Migration of certain elements (Aluminium, Antimony, Arsenic, Barium, Boron, Cadmium, Chromium (III), Chromium (VI), Cobalt, Copper, Lead, Manganese, Mercury, Nickel, Selenium, Strontium, Tin, Organic Tin and Zinc).	Passed
		IV. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII, Entry 23 and its amendment Regulation (EU) No. 494/2011 and No. 835/2012 - Cadmium content (formerly Directive 91/338/EEC)	Passed
		V. European Regulation (EU) No. 1907/2006(REACH) Annex XVII Entry 51 & 52 and its amendment Commission Regulation (EU) 2018/2005 - Phthalate content.	Passed
		VI. ASTM F963-17 - Physical and Mechanical Tests	Passed
		- Flammability Test	Passed
		- Heavy Elements Test (Clause 4.3.5)	Passed
		VII. Lead content in accordance with U.S. Consumer Product Safety Improvement Act of 2008 - Sec. 101 : Children's Products Containing Lead; Lead Paint Rule	Passed
		VIII. Phthalates content as required by section 108, USA Consumer Product Safety Improvement Act and 16 CFR 1307 and 15 U.S. Code § 2057c.	Passed

WONG Wing-cheung, Benny  
Authorized Signatory

The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27  
**No.** : HP22100286

Page 4 of 79

	<u>Test Item</u>	<u>Result</u>
<b>Test Requested</b>	: IX. Total lead content in accordance with California Proposition 65.	Passed
	X. Phthalates content in accordance with California Proposition 65.	Passed
<b>Test Result</b>	: Refer to the result pages for details.	

A handwritten signature in black ink, appearing to read 'Wong Wing-cheung'.

WONG Wing-cheung, Benny  
Authorized Signatory



## Test Report

**Date** : 2022-10-27

Page 5 of 79

**No.** : HP22100286

### Test Results :

#### I. EN71 : Part 1 : 2014 + A1 : 2018

<u>Applicable clause</u>	<u>Description</u>	<u>Result</u>
4	<u>General requirements</u>	
4.1	Material cleanliness	Pass
4.7	Edges	Pass
4.8	Points and metallic wires	Pass
6	Packaging	Pass
7	<u>Warnings, markings and instructions for use</u>	*1
7.1	General	Pass
7.2	Toys not intended for children under 36 months	Pass

\*1 = The manufacturer or his authorized representative or the importer into the community shall in a visible, easily legible and indelible form affix his name and/or trade name and/or mark and address on the toy or on its packaging.

Note: For numerical result with upper[lower] limit, compliance is deemed to occur if the measured result is under[above] the upper[lower] limit, even when extended upwards [downwards] by the expanded uncertainty with 95% coverage probability.

#### II. EN71 : Part 2 : 2020

<u>Applicable clause</u>	<u>Title/Description</u>	<u>Result</u>
4.1	General requirements	Pass

Note : No cellulose nitrate and material with same behaviour in fire was detected.

Note: For numerical result with upper[lower] limit, compliance is deemed to occur if the measured result is under[above] the upper[lower] limit, even when extended upwards [downwards] by the expanded uncertainty with 95% coverage probability.

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 6 of 79

**No.** : HP22100286

**III. EN 71-3:2019+A1:2021**

Test Method: Heavy element analysis was determined by Inductively Coupled Plasma Spectrometry (ICP-OES) and/or Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and/or Gas Chromatography Mass Spectrometry (GCMS).

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)					
		Sample					
		1	2	3	4	5	6
Aluminium (Al)	28130	15	ND	ND	ND	ND	ND
Antimony (Sb)	560	ND	ND	ND	ND	ND	ND
Arsenic (As)	47	ND	ND	ND	ND	ND	ND
Barium (Ba)	18,750	ND	ND	ND	ND	ND	ND
Boron (B)	15,000	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	17	0.072	ND	ND	ND	ND	ND
Chromium (III)	460	0.072	BL	BL	BL	BL	BL
Chromium (VI)	0.053	ND	BL	BL	BL	BL	BL
Cobalt (Co)	130	ND	ND	ND	ND	ND	ND
Copper (Cu)	7,700	ND	ND	ND	ND	ND	ND
Lead (Pb)	23	ND	ND	ND	ND	ND	ND
Manganese (Mn)	15,000	ND	ND	ND	ND	ND	ND
Mercury (Hg)	94	ND	ND	ND	ND	ND	ND
Nickel (Ni)	930	ND	ND	ND	ND	ND	ND
Selenium (Se)	460	ND	ND	ND	ND	ND	ND
Strontium (Sr)	56,000	ND	ND	ND	ND	ND	ND
Tin (Sn)	180,000	ND	ND	ND	0.2	ND	ND
Organic tin <sup>#</sup>	12	ND	ND	ND	0.53	ND	ND
Zinc (Zn)	46,000	ND	ND	ND	ND	ND	ND

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 7 of 79

**No.** : HP22100286

III. EN 71-3:2019+A1:2021

Test Method: Heavy element analysis was determined by Inductively Coupled Plasma Spectrometry (ICP-OES) and/or Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and/or Gas Chromatography Mass Spectrometry (GCMS).

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)					
		Sample					
		7	8	9	10	11	12
Aluminium (Al)	28130	ND	ND	ND	ND	ND	ND
Antimony (Sb)	560	ND	ND	ND	ND	ND	ND
Arsenic (As)	47	ND	ND	ND	ND	ND	ND
Barium (Ba)	18,750	ND	ND	ND	ND	ND	ND
Boron (B)	15,000	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	17	ND	ND	ND	ND	ND	ND
Chromium (III)	460	BL	BL	BL	BL	BL	BL
Chromium (VI)	0.053	BL	BL	BL	BL	BL	BL
Cobalt (Co)	130	ND	ND	ND	ND	ND	ND
Copper (Cu)	7,700	ND	ND	ND	ND	ND	ND
Lead (Pb)	23	ND	ND	ND	ND	ND	ND
Manganese (Mn)	15,000	ND	ND	ND	ND	ND	ND
Mercury (Hg)	94	ND	ND	ND	ND	ND	ND
Nickel (Ni)	930	ND	ND	ND	ND	ND	ND
Selenium (Se)	460	ND	ND	ND	ND	ND	ND
Strontium (Sr)	56,000	ND	ND	ND	ND	ND	ND
Tin (Sn)	180,000	ND	ND	ND	ND	ND	ND
Organic tin <sup>#</sup>	12	ND	ND	ND	ND	ND	ND
Zinc (Zn)	46,000	ND	ND	ND	ND	ND	ND

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 8 of 79

**No.** : HP22100286

**III. EN 71-3:2019+A1:2021**

Test Method: Heavy element analysis was determined by Inductively Coupled Plasma Spectrometry (ICP-OES) and/or Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and/or Gas Chromatography Mass Spectrometry (GCMS).

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)					
		Sample					
		13	14	15	16	17	18
Aluminium (Al)	28130	ND	ND	7	ND	ND	ND
Antimony (Sb)	560	ND	ND	ND	ND	ND	ND
Arsenic (As)	47	ND	ND	ND	ND	ND	ND
Barium (Ba)	18,750	ND	ND	ND	ND	ND	ND
Boron (B)	15,000	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	17	ND	ND	ND	0.079	ND	ND
Chromium (III)	460	BL	BL	BL	0.079	BL	BL
Chromium (VI)	0.053	BL	BL	BL	ND	BL	BL
Cobalt (Co)	130	ND	ND	ND	ND	ND	ND
Copper (Cu)	7,700	ND	ND	ND	ND	ND	ND
Lead (Pb)	23	ND	ND	ND	ND	ND	ND
Manganese (Mn)	15,000	ND	ND	ND	ND	ND	ND
Mercury (Hg)	94	ND	ND	ND	ND	ND	ND
Nickel (Ni)	930	ND	ND	ND	ND	ND	ND
Selenium (Se)	460	ND	ND	ND	ND	ND	ND
Strontium (Sr)	56,000	ND	ND	ND	ND	ND	ND
Tin (Sn)	180,000	ND	ND	ND	ND	ND	ND
Organic tin <sup>#</sup>	12	ND	ND	ND	ND	ND	ND
Zinc (Zn)	46,000	ND	ND	ND	ND	ND	ND

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.





## Test Report

**Date** : 2022-10-27

Page 9 of 79

**No.** : HP22100286

**III. EN 71-3:2019+A1:2021**

Test Method: Heavy element analysis was determined by Inductively Coupled Plasma Spectrometry (ICP-OES) and/or Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and/or Gas Chromatography Mass Spectrometry (GCMS).

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)					
		Sample					
		19	20	21	22	23	24
Aluminium (Al)	28130	ND	ND	ND	ND	ND	ND
Antimony (Sb)	560	ND	ND	ND	ND	ND	ND
Arsenic (As)	47	ND	ND	ND	ND	ND	ND
Barium (Ba)	18,750	ND	ND	ND	ND	ND	ND
Boron (B)	15,000	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	17	ND	ND	ND	ND	ND	0.053
Chromium (III)	460	BL	BL	BL	BL	BL	0.053
Chromium (VI)	0.053	BL	BL	BL	BL	BL	ND
Cobalt (Co)	130	ND	ND	ND	ND	ND	ND
Copper (Cu)	7,700	ND	ND	ND	ND	ND	ND
Lead (Pb)	23	ND	ND	ND	ND	ND	ND
Manganese (Mn)	15,000	ND	ND	ND	ND	ND	ND
Mercury (Hg)	94	ND	ND	ND	ND	ND	ND
Nickel (Ni)	930	ND	ND	ND	ND	ND	ND
Selenium (Se)	460	ND	ND	ND	ND	ND	ND
Strontium (Sr)	56,000	ND	ND	ND	ND	ND	ND
Tin (Sn)	180,000	ND	ND	ND	ND	ND	0.2
Organic tin <sup>#</sup>	12	ND	ND	ND	ND	ND	0.50
Zinc (Zn)	46,000	ND	ND	ND	ND	ND	ND

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 10 of 79

**No.** : HP22100286

III. EN 71-3:2019+A1:2021

Test Method: Heavy element analysis was determined by Inductively Coupled Plasma Spectrometry (ICP-OES) and/or Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and/or Gas Chromatography Mass Spectrometry (GCMS).

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)					
		Sample					
		25	26	27	28	29	30
Aluminium (Al)	28130	ND	ND	ND	ND	ND	ND
Antimony (Sb)	560	ND	ND	ND	ND	ND	ND
Arsenic (As)	47	ND	ND	ND	ND	ND	ND
Barium (Ba)	18,750	ND	ND	ND	ND	ND	ND
Boron (B)	15,000	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	17	0.321	ND	ND	0.052	ND	0.053
Chromium (III)	460	0.321	BL	BL	0.052	BL	0.053
Chromium (VI)	0.053	ND	BL	BL	ND	BL	ND
Cobalt (Co)	130	ND	ND	ND	ND	ND	ND
Copper (Cu)	7,700	ND	ND	ND	ND	ND	ND
Lead (Pb)	23	ND	ND	ND	ND	ND	ND
Manganese (Mn)	15,000	ND	ND	ND	ND	ND	ND
Mercury (Hg)	94	ND	ND	ND	ND	ND	ND
Nickel (Ni)	930	ND	ND	ND	ND	ND	ND
Selenium (Se)	460	ND	ND	ND	ND	ND	ND
Strontium (Sr)	56,000	ND	ND	ND	ND	ND	ND
Tin (Sn)	180,000	ND	0.2	ND	ND	ND	ND
Organic tin <sup>#</sup>	12	ND	0.53	ND	ND	ND	ND
Zinc (Zn)	46,000	ND	ND	ND	ND	ND	ND

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 11 of 79

**No.** : HP22100286

III. EN 71-3:2019+A1:2021

Test Method: Heavy element analysis was determined by Inductively Coupled Plasma Spectrometry (ICP-OES) and/or Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and/or Gas Chromatography Mass Spectrometry (GCMS).

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)					
		Sample					
		31	32	33	34	35	36
Aluminium (Al)	28130	ND	ND	ND	ND	ND	ND
Antimony (Sb)	560	ND	ND	ND	ND	ND	ND
Arsenic (As)	47	ND	ND	ND	ND	ND	ND
Barium (Ba)	18,750	ND	ND	ND	ND	ND	ND
Boron (B)	15,000	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	17	ND	ND	ND	ND	ND	0.208
Chromium (III)	460	BL	BL	BL	BL	BL	0.208
Chromium (VI)	0.053	BL	BL	BL	BL	BL	ND
Cobalt (Co)	130	ND	ND	ND	ND	ND	ND
Copper (Cu)	7,700	ND	ND	ND	ND	ND	ND
Lead (Pb)	23	ND	ND	ND	ND	ND	ND
Manganese (Mn)	15,000	ND	ND	ND	ND	ND	ND
Mercury (Hg)	94	ND	ND	ND	ND	ND	ND
Nickel (Ni)	930	ND	ND	ND	ND	ND	ND
Selenium (Se)	460	ND	ND	ND	ND	ND	ND
Strontium (Sr)	56,000	ND	ND	ND	ND	ND	ND
Tin (Sn)	180,000	ND	ND	ND	ND	ND	ND
Organic tin <sup>#</sup>	12	ND	ND	ND	ND	ND	ND
Zinc (Zn)	46,000	ND	ND	ND	ND	ND	ND

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 12 of 79

**No.** : HP22100286

III. EN 71-3:2019+A1:2021

Test Method: Heavy element analysis was determined by Inductively Coupled Plasma Spectrometry (ICP-OES) and/or Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and/or Gas Chromatography Mass Spectrometry (GCMS).

Category III – Scraped-off toy material

Element	Migration limit (mg/kg)	Result (mg/kg)				
		Sample				
		37	38	39	40	41
Aluminium (Al)	28130	ND	ND	ND	ND	6
Antimony (Sb)	560	ND	ND	ND	ND	ND
Arsenic (As)	47	ND	ND	ND	ND	ND
Barium (Ba)	18,750	ND	ND	ND	ND	ND
Boron (B)	15,000	ND	ND	ND	ND	ND
Cadmium (Cd)	17	ND	ND	ND	ND	0.060
Chromium (III)	460	BL	BL	BL	BL	0.060
Chromium (VI)	0.053	BL	BL	BL	BL	ND
Cobalt (Co)	130	ND	ND	ND	ND	ND
Copper (Cu)	7,700	ND	ND	ND	ND	ND
Lead (Pb)	23	ND	ND	ND	ND	ND
Manganese (Mn)	15,000	ND	ND	ND	ND	8
Mercury (Hg)	94	ND	ND	ND	ND	ND
Nickel (Ni)	930	ND	ND	ND	ND	ND
Selenium (Se)	460	ND	ND	ND	ND	ND
Strontium (Sr)	56,000	ND	ND	ND	ND	41
Tin (Sn)	180,000	ND	ND	ND	ND	ND
Organic tin <sup>#</sup>	12	ND	ND	ND	ND	ND
Zinc (Zn)	46,000	ND	ND	ND	ND	ND

- Note :
- All results are in mg/kg
  - < denotes less than
  - ≥ denotes greater than or equal to
  - For samples of migrated chromium content lower than migration limit of chromium (VI), no speciation test for chromium (III) and chromium (VI) were conducted. The results were derived from that of total chromium.
  - For samples of migrated tin content calculated as tributyl tin lower than migration limit of organic tin, no organic tin test was conducted. Organic tin results were derived from that of total tin.
  - ND = Not detected
  - BL = Below Limit

The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

Date : 2022-10-27

Page 13 of 79

No. : HP22100286

For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability

### III. EN 71-3:2019+A1:2021\*

Category III – Scraped-off toy material

- Note :
- The samples with sample weight less than 100 mg, were assumed to be 100 mg in calculation (except glass/ceramic/metallic materials)
  - <sup>#</sup>Organic tin compounds under investigation are limited to methyltin, butyltin, dibutyltin, tributyltin, tetrabutyltin, monooctyltin, dioctyltin, dipropyltin, diphenyltin and triphenyltin. Other organic tin compounds may also be present in toys

Sample	Description	Sample weight
1	Basic parts: red ABS	≥100 mg
2	Basic parts: blue ABS	≥100 mg
3	Basic parts: yellow ABS	≥100 mg
4	Basic parts: green ABS	≥100 mg
5	Basic parts: pink ABS	≥100 mg
6	Basic parts: sky blue ABS	≥100 mg
7	Basic parts: orange ABS	≥100 mg
8	Basic parts: lime ABS	≥100 mg
9	Basic parts & Center of Middle Size Wheel: white ABS	≥100 mg
10	Basic parts: black ABS	≥100 mg
11	Basic parts: brown ABS	≥100 mg
12	Basic parts: grey ABS	≥100 mg
13	Basic parts: lavender ABS	≥100 mg
14	Basic parts & Pax & Cross part: red POM	≥100 mg
15	Basic parts & Pax: blue POM	≥100 mg
16	Basic parts & Pax & Cross part: yellow POM	≥100 mg
17	Basic parts & Pax: green POM	≥100 mg
18	Basic parts: pink POM	≥100 mg
19	Basic parts: sky blue POM	≥100 mg
20	Basic parts: orange POM	≥100 mg
21	Basic parts: Lime POM	≥100 mg
22	Basic parts & Cross part & Center of Mini Wheel: white POM	≥100 mg
23	Basic parts & Shaft & Long Shaft & Mini Shaft & Ball Joint A and B & Cross part: black POM	≥100 mg
24	Basic parts: brown POM	≥100 mg

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

Date : 2022-10-27

Page 14 of 79

No. : HP22100286

III. EN 71-3:2019+A1:2021\*

Category III – Scraped-off toy material

Note :     • The samples with sample weight less than 100 mg, were assumed to be 100 mg in calculation (except glass/ceramic/metallic materials)  
# Organic tin compounds under investigation are limited to methyltin, butyltin, dibutyltin, tributyltin, tetrabutyltin, monooctyltin, dioctyltin, dipropyltin, diphenyltin and triphenyltin. Other organic tin compounds may also be present in toys

Sample	Description	Sample weight
25	Basic parts & Wheel & Parts remover: grey POM	≥100 mg
26	Basic parts: lavender POM	≥100 mg
27	Clear parts: transparent PMMA	≥100 mg
28	Clear parts: transparent red PMMA	≥100 mg
29	Clear parts: transparent blue PMMA	≥100 mg
30	Clear parts: transparent yellow PMMA	≥100 mg
31	Clear parts: transparent PC	≥100 mg
32	Clear parts: transparent red PC	≥100 mg
33	Clear parts: transparent blue PC	≥100 mg
34	Clear parts: transparent yellow PC	≥100 mg
35	Tire of middle size wheel & tire of mini wheel: black PE	≥100 mg
36	Blister case: blue PET	≥100 mg
37	Blister case: pink PET	≥100 mg
38	Large plastic container/small plastic container: translucent PP	≥100 mg
39	Cover of large plastic container/cover of small plastic container: translucent blue PP	≥100 mg
40	Lock of large plastic container/lock of small plastic container: white PP	≥100 mg
41	Instruction sheet: white paper with red/blue/green/black multicolor coating	≥100 mg

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 15 of 79

**No.** : HP22100286

- IV. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII, Entry 23 and its amendment  
Regulation (EU) No. 494/2011 and No. 835/2012  
- Cadmium content (formerly Directive 91/338/EEC).

Test Method: Acid digestion followed by Atomic Absorption Spectrophotometry and/or Inductively Coupled Plasma Spectrometry (ICP-OES) analysis.

### For plastic material

	Test item
	Total Cadmium
Maximum permissible level (mg/kg)	100
Sample	
1,2,3	<5
4,5,6	<5
7,8,9	<5
10,11,12	<5
13,14,15	<5
16,17,18	<5
19,20,21	<5
22,23,24	<5
25,26,27	<5
28,29,30	<5
31,32,33	<5
34,35,36	<5
37,38	<5
39,40	<5
41	<5

- Note :
- All results are in mg/kg
  - < denotes less than
  - # denotes composite sample. The results for composite sample are calculated based on the component with the least weight.
  - For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 16 of 79

**No.** : HP22100286

- IV. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII, Entry 23 and its amendment  
Regulation (EU) No. 494/2011 and No. 835/2012  
- Cadmium content (formerly Directive 91/338/EEC).\*

Test Method: Acid digestion followed by Atomic Absorption Spectrophotometry and/or Inductively Coupled Plasma Spectrometry (ICP-OES) analysis.

Sample	Description
1	Basic parts: red ABS
2	Basic parts: blue ABS
3	Basic parts: yellow ABS
4	Basic parts: green ABS
5	Basic parts: pink ABS
6	Basic parts: sky blue ABS
7	Basic parts: orange ABS
8	Basic parts: lime ABS
9	Basic parts & Center of Middle Size Wheel: white ABS
10	Basic parts: black ABS
11	Basic parts: brown ABS
12	Basic parts: grey ABS
13	Basic parts: lavender ABS
14	Basic parts & Pax & Cross part: red POM
15	Basic parts & Pax: blue POM
16	Basic parts & Pax & Cross part: yellow POM
17	Basic parts & Pax: green POM
18	Basic parts: pink POM
19	Basic parts: sky blue POM
20	Basic parts: orange POM
21	Basic parts: Lime POM
22	Basic parts & Cross part & Center of Mini Wheel: white POM
23	Basic parts & Shaft & Long Shaft & Mini Shaft & Ball Joint A and B & Cross part: black POM
24	Basic parts: brown POM
25	Basic parts & Wheel & Parts remover: grey POM
26	Basic parts: lavender POM
27	Clear parts: transparent PMMA
28	Clear parts: transparent red PMMA
29	Clear parts: transparent blue PMMA
30	Clear parts: transparent yellow PMMA
31	Clear parts: transparent PC
32	Clear parts: transparent red PC

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.





## Test Report

**Date** : 2022-10-27

Page 17 of 79

**No.** : HP22100286

- IV. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, Annex XVII, Entry 23 and its amendment  
Regulation (EU) No. 494/2011 and No. 835/2012  
- Cadmium content (formerly Directive 91/338/EEC).\*

Test Method: Acid digestion followed by Atomic Absorption Spectrophotometry and/or Inductively Coupled Plasma Spectrometry (ICP-OES) analysis.

Sample	Description
33	Clear parts: transparent blue PC
34	Clear parts: transparent yellow PC
35	Tire of middle size wheel & tire of mini wheel: black PE
36	Blister case: blue PET
37	Blister case: pink PET
38	Large plastic container/small plastic container: translucent PP
39	Cover of large plastic container/cover of small plastic container: translucent blue PP
40	Lock of large plastic container/lock of small plastic container: white PP
41	Instruction sheet: red/blue/green/black multicolour coating

- V. European Regulation (EU) No. 1907/2006(REACH) Annex XVII Entry 51 & 52 and its amendment Commission Regulation (EU) 2018/2005—Phthalate content.

Test Method: Phthalate analysis was determined by Gas Chromatography.

Sample	Phthalates content, %(w/w)						
	DBP	BBP	DEHP	DIBP	DNOP	DINP	DIDP
1,2,3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4,5,6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7,8,9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
10,11,12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
13,14,15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
16,17,18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
19,20,21	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
22,23,24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
25,26,27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
28,29,30	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Limit	Individually or in any combination of the DBP, BBP DEHP and DIBP shall not be equal to or greater than 0.1% by mass of the plasticised material.				The cumulative total of DNOP, DINP and DIDP shall not be greater than 0.1% by mass of the plasticised material.		

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 18 of 79

**No.** : HP22100286

- V. European Regulation (EU) No. 1907/2006(REACH) Annex XVII Entry 51 & 52 and its amendment Commission Regulation (EU) 2018/2005 – Phthalate content.

Test Method: Phthalate analysis was determined by Gas Chromatography.

Sample	Phthalates content, %(w/w)						
	DBP	BBP	DEHP	DIBP	DNOP	DINP	DIDP
31,32,33	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
34,35,36	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
37,38,39	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
40	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Limit	Individually or in any combination of the DBP, BBP DEHP and DIBP shall not be equal to or greater than 0.1% by mass of the plasticised material.				The cumulative total of DNOP, DINP and DIDP shall not be greater than 0.1% by mass of the plasticised material.		

**Remark:**

- DBP =Di-n-butyl phthalate
- BBP =Benzyl-n-butyl phthalate
- DEHP = Di (2-ethylhexyl) phthalate
- DIBP = Diisobutyl phthalate
- DNOP = Di-n-octyl phthalate
- DINP = Diisononyl phthalate
- DIDP = Diisodecyl phthalate
- %(w/w) = percentage weight per weight
- Method detection limit = 0.01%(w/w)
- The requirements of DNOP, DINP and DIDP are only applicable on tested material which can be placed in the mouth by children.
- For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

- Note :**
- All results are in % w/w
  - % w/w denotes percentage by weight
  - < denotes less than
  - # denotes composite sample. The results for composite sample are calculated based on the component with the least weight.
  - DEHP = Di (2-ethylhexyl) Phthalate; DBP = Dibutyl Phthalate; BBP = Butyl Benzyl Phthalate; DINP = Diisononyl Phthalate; DIDP = Diisodecyl Phthalate; DNOP = Di-n-octyl Phthalate

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 19 of 79

**No.** : HP22100286

- V. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council,  
Annex XVII  
- Phthalates contents (formerly Directive 2005/84/EC)\*

Test Method: Phthalate analysis was determined by Gas Chromatography.

Sample	Description
1	Basic parts: red ABS
2	Basic parts: blue ABS
3	Basic parts: yellow ABS
4	Basic parts: green ABS
5	Basic parts: pink ABS
6	Basic parts: sky blue ABS
7	Basic parts: orange ABS
8	Basic parts: lime ABS
9	Basic parts & Center of Middle Size Wheel: white ABS
10	Basic parts: black ABS
11	Basic parts: brown ABS
12	Basic parts: grey ABS
13	Basic parts: lavender ABS
14	Basic parts & Pax & Cross part: red POM
15	Basic parts & Pax: blue POM
16	Basic parts & Pax & Cross part: yellow POM
17	Basic parts & Pax: green POM
18	Basic parts: pink POM
19	Basic parts: sky blue POM
20	Basic parts: orange POM
21	Basic parts: Lime POM
22	Basic parts & Cross part & Center of Mini Wheel: white POM
23	Basic parts & Shaft & Long Shaft & Mini Shaft & Ball Joint A and B & Cross part: black POM
24	Basic parts: brown POM
25	Basic parts & Wheel & Parts remover: grey POM
26	Basic parts: lavender POM
27	Clear parts: transparent PMMA
28	Clear parts: transparent red PMMA
29	Clear parts: transparent blue PMMA
30	Clear parts: transparent yellow PMMA
31	Clear parts: transparent PC
32	Clear parts: transparent red PC
33	Clear parts: transparent blue PC
34	Clear parts: transparent yellow PC

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 20 of 79

**No.** : HP22100286

- V. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council,  
Annex XVII  
- Phthalates contents (formerly Directive 2005/84/EC)\*

Test Method: Phthalate analysis was determined by Gas Chromatography.

Sample	Description
35	Tire of middle size wheel & tire of mini wheel: black PE
36	Blister case: blue PET
37	Blister case: pink PET
38	Large plastic container/small plastic container: translucent PP
39	Cover of large plastic container/cover of small plastic container: translucent blue PP
40	Lock of large plastic container/lock of small plastic container: white PP

VI. ASTM F963-17

a. Physical and Mechanical Tests

<u>Applicable clause</u>	<u>Description</u>	<u>Result</u>
4.1	Material Quality – Visual Inspection	Pass
4.2	Flammability	Pass
4.3	Toxicology	Pass
4.6	<u>Small Objects</u>	
4.6.3	Toys intended for children > 3 years but < 6 years, 16 CFR 1500.19 Small objects labeling requirement	Pass
4.7	Accessible edges 16 CFR 1500.49 Sharp metal or glass edges	Pass
4.9	Accessible points 16 CFR 1500.48 Sharp points	Pass
4.12	Plastic film	Pass
5	<u>Labeling requirements</u>	
5.1	Federal government requirements	Pass
5.2	Age grading labeling	Pass
5.3	Safety labeling requirements	Pass
5.11	Small objects, small balls, marbles, and balloons 16 CFR 1500.19	Pass
7	<u>Producer's markings</u>	
7.1	Producer's markings	Pass

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 21 of 79

**No.** : HP22100286

Remark : The sample(s) were subjected to the normal use and abuse tests in according with Clause 8.5 Normal Use Testing, 8.7 Impact test, 8.8 Torque test, 8.9 Tension test, 8.10 Compression test and 8.12 Flexure test whichever was applicable.

Use and abuse test criteria:

Note: For numerical result with upper[lower] limit, compliance is deemed to occur if the measured result is under[above] the upper[lower] limit, even when extended upwards [downwards] by the expanded uncertainty with 95% coverage probability.

Test	Age Category, months	Test Parameters	16 CFR Reference
Drop test	0 to 18	10 x 4.5 ft	1500.51(b)(3)
	over 18 to 36	4 x 3 ft	1500.52(b)(3)
	over 36 to 96	4 x 3 ft	1500.53(b)(3)
Tip over test	-	3 times	1500.51/52/53 (b)(4)
Tumble test	-	2 x 4 attitudes	-
Steel ball impact test	-	50 inches	-
Torque test	0 to 18	2 in-lbf	1500.51(e)
	over 18 to 36	3 in-lbf	1500.52(e)
	over 36 to 96	4 in-lbf	1500.53(e)
Tension test	0 to 18	10 lbf	1500.51(f)
	over 18 to 36	15 lbf	1500.52(f)
	over 36 to 96	15 lbf	1500.53(f)
Compression test	0 to 18	20 lbf	1500.51(g)
	over 18 to 36	25 lbf	1500.52(g)
	over 36 to 96	30 lbf	1500.53(g)
Flexure test	0 to 18	120 x 30 cycles (10 lbf)	1500.51(d)
	over 18 to 36	120 x 30 cycles (15 lbf)	1500.52(d)
	over 36 to 96	120 x 30 cycles (15 lbf)	1500.53(d)

### b. Flammability Test

<u>Applicable</u> <u>clause</u>	<u>Description</u>	<u>Result</u>
4.2	Flammability Materials other than textiles (16 CFR 1500.3 (c) (6) (vi)) Test method : Annex A5 (16 CFR 1500.44)	Pass

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 22 of 79

**No.** : HP22100286

VI. ASTM F963-17

Heavy element (in composite condition)

Ref.: ASTM F963-17 Section 4.3.5

Method: ASTM F963-17 Section 8.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

	Test Item
	Total Lead
Permissible Limit (ppm)	100
Sample	
1,2,3	<10
4,5,6	<10
7,8,9	<10
10,11,12	<10
13,14,15	<10
16,17,18	<10
19,20,21	<10
22,23,24	<10
25,26,27	<10
28,29,30	<10
31,32,33	<10
34,35,36	<10
37,38	<10
39,40	<10
41	<10

Note :

- All results are in ppm
- < denotes less than
- # denotes composite sample. The results for composite sample are calculated based on the component with the least weight.
- For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 23 of 79

**No.** : HP22100286

**VI.** ASTM F963-17\*

Heavy element

Ref.: ASTM F963-17 Section 4.3.5

Method: ASTM F963-17 Section 8.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description
1	Basic parts: red ABS
2	Basic parts: blue ABS
3	Basic parts: yellow ABS
4	Basic parts: green ABS
5	Basic parts: pink ABS
6	Basic parts: sky blue ABS
7	Basic parts: orange ABS
8	Basic parts: lime ABS
9	Basic parts & Center of Middle Size Wheel: white ABS
10	Basic parts: black ABS
11	Basic parts: brown ABS
12	Basic parts: grey ABS
13	Basic parts: lavender ABS
14	Basic parts & Pax & Cross part: red POM
15	Basic parts & Pax: blue POM
16	Basic parts & Pax & Cross part: yellow POM
17	Basic parts & Pax: green POM
18	Basic parts: pink POM
19	Basic parts: sky blue POM
20	Basic parts: orange POM
21	Basic parts: Lime POM
22	Basic parts & Cross part & Center of Mini Wheel: white POM
23	Basic parts & Shaft & Long Shaft & Mini Shaft & Ball Joint A and B & Cross part: black POM
24	Basic parts: brown POM
25	Basic parts & Wheel & Parts remover: grey POM
26	Basic parts: lavender POM
27	Clear parts: transparent PMMA
28	Clear parts: transparent red PMMA
29	Clear parts: transparent blue PMMA
30	Clear parts: transparent yellow PMMA
31	Clear parts: transparent PC
32	Clear parts: transparent red PC
33	Clear parts: transparent blue PC

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 24 of 79

**No.** : HP22100286

VI. ASTM F963-17\*

Heavy element

Ref.: ASTM F963-17 Section 4.3.5

Method: ASTM F963-17 Section 8.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description
34	Clear parts: transparent yellow PC
35	Tire of middle size wheel & tire of mini wheel: black PE
36	Blister case: blue PET
37	Blister case: pink PET
38	Large plastic container/small plastic container: translucent PP
39	Cover of large plastic container/cover of small plastic container: translucent blue PP
40	Lock of large plastic container/lock of small plastic container: white PP
41	Instruction sheet: white paper

Heavy element

Ref.: ASTM F963-17 Section 4.3.5

Method: ASTM F963-17 Section 8.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

	Test Item
	Total Lead
Permissible Limit (ppm)	90
Sample	
1	<10

Note :

- All results are in ppm
- < denotes less than
- # denotes composite sample. The results for composite sample are calculated based on the component with the least weight.
- For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.





## Test Report

Date : 2022-10-27

Page 25 of 79

No. : HP22100286

VI. ASTM F963-17\*

Heavy element

Ref.: ASTM F963-17 Section 4.3.5

Method: ASTM F963-17 Section 8.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description
1	Instruction sheet: red/blue/green/black multicolor coating

VI. ASTM F963-17

Heavy element

Ref.: ASTM F963-17 Section 4.3.5

Method: ASTM F963-17 Section 8.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

	Test Item							
	As	Hg	Se	Cd	Sb	Pb	Cr	Ba
Maximum Permissible Level (ppm)	25	60	500	75	60	90	60	1000
Sample								
1	<5	<5	<5	<5	<5	<5	<5	<20
2	<5	<5	<5	<5	<5	<5	<5	<20
3	<5	<5	<5	<5	<5	<5	<5	<20
4	<5	<5	<5	<5	<5	<5	<5	<20
5	<5	<5	<5	<5	<5	<5	<5	<20
6	<5	<5	<5	<5	<5	<5	<5	<20
7	<5	<5	<5	<5	<5	<5	<5	<20
8	<5	<5	<5	<5	<5	<5	<5	<20
9	<5	<5	<5	<5	<5	<5	<5	<20
10	<5	<5	<5	<5	<5	<5	<5	<20
11	<5	<5	<5	<5	<5	<5	<5	<20
12	<5	<5	<5	<5	<5	<5	<5	<20
13	<5	<5	<5	<5	<5	<5	<5	<20
14	<5	<5	<5	<5	<5	<5	<5	<20
15	<5	<5	<5	<5	<5	<5	<5	<20
16	<5	<5	<5	<5	<5	<5	<5	<20
17	<5	<5	<5	<5	<5	<5	<5	<20

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 26 of 79

**No.** : HP22100286

### VI. ASTM F963-17

#### Heavy element

Ref.: ASTM F963-17 Section 4.3.5

Method: ASTM F963-17 Section 8.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

	Test Item							
	As	Hg	Se	Cd	Sb	Pb	Cr	Ba
Maximum Permissible Level (ppm)	25	60	500	75	60	90	60	1000
Sample								
18	<5	<5	<5	<5	<5	<5	<5	<20
19	<5	<5	<5	<5	<5	<5	<5	<20
20	<5	<5	<5	<5	<5	<5	<5	<20
21	<5	<5	<5	<5	<5	<5	<5	<20
22	<5	<5	<5	<5	<5	<5	<5	<20
23	<5	<5	<5	<5	<5	<5	<5	<20
24	<5	<5	<5	<5	<5	<5	<5	<20
25	<5	<5	<5	<5	<5	<5	<5	<20
26	<5	<5	<5	<5	<5	<5	<5	<20
27	<5	<5	<5	<5	<5	<5	<5	<20
28	<5	<5	<5	<5	<5	<5	<5	<20
29	<5	<5	<5	<5	<5	<5	<5	<20
30	<5	<5	<5	<5	<5	<5	<5	<20
31	<5	<5	<5	<5	<5	<5	<5	<20
32	<5	<5	<5	<5	<5	<5	<5	<20
33	<5	<5	<5	<5	<5	<5	<5	<20
34	<5	<5	<5	<5	<5	<5	<5	<20
35	<5	<5	<5	<5	<5	<5	<5	<20
36	<5	<5	<5	<5	<5	<5	<5	<20
37	<5	<5	<5	<5	<5	<5	<5	<20
38	<5	<5	<5	<5	<5	<5	<5	<20
39	<5	<5	<5	<5	<5	<5	<5	<20
40	<5	<5	<5	<5	<5	<5	<5	<20
41	<5	<5	<5	<5	<5	<5	<5	<20
42	<5	<5	<5	8	<5	<5	<5	<20

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

Date : 2022-10-27

Page 27 of 79

No. : HP22100286

- Note :
- All results are in ppm
  - ppm denotes part per million by weight
  - < denotes less than
  - ≥ denotes greater than or equal to
  - As = Arsenic; Hg = Mercury; Se = Selenium; Cd = Cadmium; Sb = Antimony; Pb = Lead; Cr = Chromium; Ba = Barium
  - For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

### VI. ASTM F963-17\*

#### Heavy element

Ref.: ASTM F963-17 Section 4.3.5

Method: ASTM F963-17 Section 8.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description	Sample weight
1	Basic parts: red ABS	≥100 mg
2	Basic parts: blue ABS	≥100 mg
3	Basic parts: yellow ABS	≥100 mg
4	Basic parts: green ABS	≥100 mg
5	Basic parts: pink ABS	≥100 mg
6	Basic parts: sky blue ABS	≥100 mg
7	Basic parts: orange ABS	≥100 mg
8	Basic parts: lime ABS	≥100 mg
9	Basic parts & Center of Middle Size Wheel: white ABS	≥100 mg
10	Basic parts: black ABS	≥100 mg
11	Basic parts: brown ABS	≥100 mg
12	Basic parts: grey ABS	≥100 mg
13	Basic parts: lavender ABS	≥100 mg
14	Basic parts & Pax & Cross part: red POM	≥100 mg
15	Basic parts & Pax: blue POM	≥100 mg
16	Basic parts & Pax & Cross part: yellow POM	≥100 mg
17	Basic parts & Pax: green POM	≥100 mg
18	Basic parts: pink POM	≥100 mg
19	Basic parts: sky blue POM	≥100 mg
20	Basic parts: orange POM	≥100 mg
21	Basic parts: Lime POM	≥100 mg
22	Basic parts & Cross part & Center of Mini Wheel: white POM	≥100 mg
23	Basic parts & Shaft & Long Shaft & Mini Shaft & Ball Joint A and B & Cross part: black POM	≥100 mg
24	Basic parts: brown POM	≥100 mg

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 28 of 79

**No.** : HP22100286

VI. ASTM F963-17\*

Heavy element

Ref.: ASTM F963-17 Section 4.3.5

Method: ASTM F963-17 Section 8.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description	Sample weight
25	Basic parts & Wheel & Parts remover: grey POM	≥100 mg
26	Basic parts: lavender POM	≥100 mg
27	Clear parts: transparent PMMA	≥100 mg
28	Clear parts: transparent red PMMA	≥100 mg
29	Clear parts: transparent blue PMMA	≥100 mg
30	Clear parts: transparent yellow PMMA	≥100 mg
31	Clear parts: transparent PC	≥100 mg
32	Clear parts: transparent red PC	≥100 mg
33	Clear parts: transparent blue PC	≥100 mg
34	Clear parts: transparent yellow PC	≥100 mg
35	Tire of middle size wheel & tire of mini wheel: black PE	≥100 mg
36	Blister case: blue PET	≥100 mg
37	Blister case: pink PET	≥100 mg
38	Large plastic container/small plastic container: translucent PP	≥100 mg
39	Cover of large plastic container/cover of small plastic container: translucent blue PP	≥100 mg
40	Lock of large plastic container/lock of small plastic container: white PP	≥100 mg
41	Instruction sheet: white paper	≥100 mg
42	Instruction sheet: red/blue/green/black multicolour coating	≥100 mg

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 29 of 79

**No.** : HP22100286

**VII.** Children's products containing lead - Total lead content in substrate (in composite condition)

Ref.: CPSIA Sec 101(a) and 15 U.S. Code § 1278a.

Test method: Standard operation procedure for determining total lead (Pb) in non-metal children's products, CPSC-CH-E1002-08.3

Test method: Standard operation procedure for determining total lead (Pb) in metal children's products, CPSC-CH-E1001-08.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

For materials and substrate

	Test Item
	Total Lead
Permissible Limit (mg/kg)	100
Sample	
1,2,3	<10
4,5,6	<10
7,8,9	<10
10,11,12	<10
13,14,15	<10
16,17,18	<10
19,20,21	<10
22,23,24	<10
25,26,27	<10
28,29,30	<10
31,32,33	<10
34,35,36	<10
37,38	<10
39,40	<10
41	<10

- Note :
- All results are in mg/kg
  - < denotes less than
  - # denotes composite sample. The results for composite sample are calculated based on the component with the least weight.
  - For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 30 of 79

**No.** : HP22100286

**VII.** Children's products containing lead - Total lead content in substrate\*

Ref.: CPSIA Sec 101(a) and 15 U.S. Code § 1278a.

Test method: Standard operation procedure for determining total lead (Pb) in non-metal children's products, CPSC-CH-E1002-08.3

Test method: Standard operation procedure for determining total lead (Pb) in metal children's products, CPSC-CH-E1001-08.3

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description
1	Basic parts: red ABS
2	Basic parts: blue ABS
3	Basic parts: yellow ABS
4	Basic parts: green ABS
5	Basic parts: pink ABS
6	Basic parts: sky blue ABS
7	Basic parts: orange ABS
8	Basic parts: lime ABS
9	Basic parts & Center of Middle Size Wheel: white ABS
10	Basic parts: black ABS
11	Basic parts: brown ABS
12	Basic parts: grey ABS
13	Basic parts: lavender ABS
14	Basic parts & Pax & Cross part: red POM
15	Basic parts & Pax: blue POM
16	Basic parts & Pax & Cross part: yellow POM
17	Basic parts & Pax: green POM
18	Basic parts: pink POM
19	Basic parts: sky blue POM
20	Basic parts: orange POM
21	Basic parts: Lime POM
22	Basic parts & Cross part & Center of Mini Wheel: white POM
23	Basic parts & Shaft & Long Shaft & Mini Shaft & Ball Joint A and B & Cross part: black POM
24	Basic parts: brown POM
25	Basic parts & Wheel & Parts remover: grey POM
26	Basic parts: lavender POM
27	Clear parts: transparent PMMA
28	Clear parts: transparent red PMMA
29	Clear parts: transparent blue PMMA
30	Clear parts: transparent yellow PMMA
31	Clear parts: transparent PC

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 31 of 79

**No.** : HP22100286

- VII. Children's products containing lead - Total lead content in substrate\*  
Ref.: CPSIA Sec 101(a) and 15 U.S. Code § 1278a.  
Test method: Standard operation procedure for determining total lead (Pb) in non-metal children's products, CPSC-CH-E1002-08.3  
Test method: Standard operation procedure for determining total lead (Pb) in metal children's products, CPSC-CH-E1001-08.3  
Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description
32	Clear parts: transparent red PC
33	Clear parts: transparent blue PC
34	Clear parts: transparent yellow PC
35	Tire of middle size wheel & tire of mini wheel: black PE
36	Blister case: blue PET
37	Blister case: pink PET
38	Large plastic container/small plastic container: translucent PP
39	Cover of large plastic container/cover of small plastic container: translucent blue PP
40	Lock of large plastic container/lock of small plastic container: white PP
41	Instruction sheet: white paper with red/blue/green/black multicolor coating

- VII. Children's products containing lead - Total lead content in paint and surface coating  
Ref.: CPSIA Sec. 101 (f), 16 CFR 1303 and 15 U.S. Code § 1278a.  
Test method: CPSC-CH-E 1003-09.1  
Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

### For surface coating

	Test Item
	Total Lead
Permissible Limit (mg/kg)	90
Sample	
1	<10

- Note :
  - All results are in mg/kg
  - < denotes less than
  - # denotes composite sample. The results for composite sample are calculated based on the component with the least weight.

The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

Date : 2022-10-27

Page 32 of 79

No. : HP22100286

- For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

VII. Children's products containing lead - Total lead content in paint and surface coating\*

Ref.: CPSIA Sec. 101 (f), 16 CFR 1303 and 15 U.S. Code § 1278a.

Test method: CPSC-CH-E 1003-09.1

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description
1	Instruction sheet: red/blue/green/black multicolour coating

VIII. Phthalates content (in composite condition)

Ref.: CPSIA Sec. 108 & 16 CFR 1307 and 15 U.S. Code § 2057c.

Test method: CPSC-CH-C1001-09.4 by Gas Chromatography with Mass Selective Detector

Sample No.	Phthalates content, %(w/w)									
	DBP	BBP	DEHP	DINP	DHEXP	DIBP	DPENP	DCHP	DNOP	DIDP
1,2,3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4,5,6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7,8,9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
10,11,12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
13,14,15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
16,17,18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
19,20,21	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
22,23,24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
25,26,27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
28,29,30	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
31,32,33	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
34,35,36	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
37,38,39	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
40	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	See Note	

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.





## Test Report

**Date** : 2022-10-27  
**No.** : HP22100286

Page 33 of 79

**Remark:**

- DBP =Di-n-butyl phthalate
- BBP =Benzyl-n-butyl phthalate
- DEHP = Di (2-ethylhexyl) phthalate
- DNOP = Di-n-octyl phthalate
- DINP = Diisononyl phthalate
- DIDP = Diisodecyl phthalate
- DHEXP =Di-n-hexyl phthalate
- DIBP =Diisobutyl phthalate
- DPENP =Di-n-pentyl phthalate
- DCHP =Dicyclohexyl phthalate
- %(w/w) =percentage weight per weight

Note : The results of DNOP and DIDP are for reference only.

- Note :
- All results are in % w/w
  - % w/w denotes percentage by weight
  - < denotes less than
  - # denotes composite sample. The results for composite sample are calculated based on the component with the least weight
  - For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

**VIII. Phthalates content\***

Ref.: CPSIA Sec. 108 & 16 CFR 1307 and 15 U.S. Code § 2057c.

Test method: CPSC-CH-C1001-09.4 by Gas Chromatography with Mass Selective Detector

Sample	Description
1	Basic parts: red ABS
2	Basic parts: blue ABS
3	Basic parts: yellow ABS
4	Basic parts: green ABS
5	Basic parts: pink ABS
6	Basic parts: sky blue ABS
7	Basic parts: orange ABS
8	Basic parts: lime ABS
9	Basic parts & Center of Middle Size Wheel: white ABS
10	Basic parts: black ABS
11	Basic parts: brown ABS
12	Basic parts: grey ABS
13	Basic parts: lavender ABS
14	Basic parts & Pax & Cross part: red POM

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 34 of 79

**No.** : HP22100286

**VIII.** Phthalates content\*

Ref.: CPSIA Sec. 108 & 16 CFR 1307 and 15 U.S. Code § 2057c.

Test method: CPSC-CH-C1001-09.4 by Gas Chromatography with Mass Selective Detector

Sample	Description
15	Basic parts & Pax: blue POM
16	Basic parts & Pax & Cross part: yellow POM
17	Basic parts & Pax: green POM
18	Basic parts: pink POM
19	Basic parts: sky blue POM
20	Basic parts: orange POM
21	Basic parts: Lime POM
22	Basic parts & Cross part & Center of Mini Wheel: white POM
23	Basic parts & Shaft & Long Shaft & Mini Shaft & Ball Joint A and B & Cross part: black POM
24	Basic parts: brown POM
25	Basic parts & Wheel & Parts remover: grey POM
26	Basic parts: lavender POM
27	Clear parts: transparent PMMA
28	Clear parts: transparent red PMMA
29	Clear parts: transparent blue PMMA
30	Clear parts: transparent yellow PMMA
31	Clear parts: transparent PC
32	Clear parts: transparent red PC
33	Clear parts: transparent blue PC
34	Clear parts: transparent yellow PC
35	Tire of middle size wheel & tire of mini wheel: black PE
36	Blister case: blue PET
37	Blister case: pink PET
38	Large plastic container/small plastic container: translucent PP
39	Cover of large plastic container/cover of small plastic container: translucent blue PP
40	Lock of large plastic container/lock of small plastic container: white PP

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 35 of 79

**No.** : HP22100286

IX. California Proposition 65: Lead content (in composite condition)

Ref.: Proposition 65 list of chemicals.

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

### For materials and substrate

	Test Item
	Total Lead
Permissible Limit (mg/kg)	100
Sample	
1,2,3	<10
4,5,6	<10
7,8,9	<10
10,11,12	<10
13,14,15	<10
16,17,18	<10
19,20,21	<10
22,23,24	<10
25,26,27	<10
28,29,30	<10
31,32,33	<10
34,35,36	<10
37,38	<10
39,40	<10
41	<10

- Note :
- All results are in mg/kg
  - < denotes less than
  - # denotes composite sample. The results for composite sample are calculated based on the component with the least weight.
  - For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

Date : 2022-10-27

Page 36 of 79

No. : HP22100286

IX. California Proposition 65: Lead content\*

Ref.: Proposition 65 list of chemicals.

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description
1	Basic parts: red ABS
2	Basic parts: blue ABS
3	Basic parts: yellow ABS
4	Basic parts: green ABS
5	Basic parts: pink ABS
6	Basic parts: sky blue ABS
7	Basic parts: orange ABS
8	Basic parts: lime ABS
9	Basic parts & Center of Middle Size Wheel: white ABS
10	Basic parts: black ABS
11	Basic parts: brown ABS
12	Basic parts: grey ABS
13	Basic parts: lavender ABS
14	Basic parts & Pax & Cross part: red POM
15	Basic parts & Pax: blue POM
16	Basic parts & Pax & Cross part: yellow POM
17	Basic parts & Pax: green POM
18	Basic parts: pink POM
19	Basic parts: sky blue POM
20	Basic parts: orange POM
21	Basic parts: Lime POM
22	Basic parts & Cross part & Center of Mini Wheel: white POM
23	Basic parts & Shaft & Long Shaft & Mini Shaft & Ball Joint A and B & Cross part: black POM
24	Basic parts: brown POM
25	Basic parts & Wheel & Parts remover: grey POM
26	Basic parts: lavender POM
27	Clear parts: transparent PMMA
28	Clear parts: transparent red PMMA
29	Clear parts: transparent blue PMMA
30	Clear parts: transparent yellow PMMA
31	Clear parts: transparent PC
32	Clear parts: transparent red PC
33	Clear parts: transparent blue PC
34	Clear parts: transparent yellow PC
35	Tire of middle size wheel & tire of mini wheel: black PE

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 37 of 79

**No.** : HP22100286

IX. California Proposition 65: Lead content\*

Ref.: Proposition 65 list of chemicals.

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description
36	Blister case: blue PET
37	Blister case: pink PET
38	Large plastic container/small plastic container: translucent PP
39	Cover of large plastic container/cover of small plastic container: translucent blue PP
40	Lock of large plastic container/lock of small plastic container: white PP
41	Instruction sheet: white paper with red/blue/green/black multicolor coating

IX. California Proposition 65: Lead content

Ref.: Proposition 65 list of chemicals.

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

For surface coating

	Test Item
	Total Lead
Permissible Limit (mg/kg)	90
Sample	
1	<10

- Note :
- All results are in mg/kg
  - < denotes less than
  - # denotes composite sample. The results for composite sample are calculated based on the component with the least weight.
  - For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

IX. California Proposition 65: Lead content\*

Ref.: Proposition 65 list of chemicals.

Determined by: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

Sample	Description
1	Instruction sheet: red/blue/green/black multicolour coating

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

Date : 2022-10-27

Page 38 of 79

No. : HP22100286

X. California Proposition 65: Phthalates content (in composite condition)

Ref.: Proposition 65 list of chemicals.

Determined by: Gas Chromatography Mass Spectrometer

Sample No.	Phthalates content, %(w/w)					
	DBP	BBP	DEHP	DNHP	DINP	DIDP
1,2,3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4,5,6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7,8,9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
10,11,12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
13,14,15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
16,17,18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
19,20,21	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
22,23,24	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
25,26,27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
28,29,30	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
31,32,33	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
34,35,36	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
37,38	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
39,40	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Limit	0.1	0.1	0.1	0.1	0.1	0.1

**Remark:**

- Method detection limit = 0.01%(w/w)
- %(w/w) =percentage weight per weigh
- The above limit was quoted from the requirement stated in Alameda Superior Court, BG-07-350969.
- DBP = Di-n-butyl phthalate
- BBP = Benzyl-n-butyl phthalate
- DEHP = Di (2-ethylhexyl) phthalate
- DNHP = Di-n-hexyl phthalate
- DINP = Diisononyl phthalate
- DIDP = Diisodecyl phthalate
- For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 39 of 79

**No.** : HP22100286

- Note :
- All results are in % w/w
  - % w/w denotes percentage by weight
  - < denotes less than
  - # denotes composite sample. The results for composite sample are calculated based on the component with the least weight
  - For specification with upper limit, compliance is deemed to occur if the measured result is under the limit, even extended upwards by the expanded uncertainty with 95% coverage probability.

X. California Proposition 65: Phthalates content\*

Ref.: Proposition 65 list of chemicals.

Determined by: Gas Chromatography Mass Spectrometer

Sample	Description
1	Basic parts: red ABS
2	Basic parts: blue ABS
3	Basic parts: yellow ABS
4	Basic parts: green ABS
5	Basic parts: pink ABS
6	Basic parts: sky blue ABS
7	Basic parts: orange ABS
8	Basic parts: lime ABS
9	Basic parts & Center of Middle Size Wheel: white ABS
10	Basic parts: black ABS
11	Basic parts: brown ABS
12	Basic parts: grey ABS
13	Basic parts: lavender ABS
14	Basic parts & Pax & Cross part: red POM
15	Basic parts & Pax: blue POM
16	Basic parts & Pax & Cross part: yellow POM
17	Basic parts & Pax: green POM
18	Basic parts: pink POM
19	Basic parts: sky blue POM
20	Basic parts: orange POM
21	Basic parts: Lime POM
22	Basic parts & Cross part & Center of Mini Wheel: white POM
23	Basic parts & Shaft & Long Shaft & Mini Shaft & Ball Joint A and B & Cross part: black POM
24	Basic parts: brown POM
25	Basic parts & Wheel & Parts remover: grey POM
26	Basic parts: lavender POM
27	Clear parts: transparent PMMA

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 40 of 79

**No.** : HP22100286

- X. California Proposition 65: Phthalates content\*  
Ref.: Proposition 65 list of chemicals.  
Determined by: Gas Chromatography Mass Spectrometer

Sample	Description
28	Clear parts: transparent red PMMA
29	Clear parts: transparent blue PMMA
30	Clear parts: transparent yellow PMMA
31	Clear parts: transparent PC
32	Clear parts: transparent red PC
33	Clear parts: transparent blue PC
34	Clear parts: transparent yellow PC
35	Tire of middle size wheel & tire of mini wheel: black PE
36	Blister case: blue PET
37	Blister case: pink PET
38	Large plastic container/small plastic container: translucent PP
39	Cover of large plastic container/cover of small plastic container: translucent blue PP
40	Lock of large plastic container/lock of small plastic container: white PP

\* = All chemical tests results were referred from our Test Report No. HP22060224 issued on 2022-07-06.

The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

Date : 2022-10-27

Page 41 of 79

No. : HP22100286

### Appendix for Photos of the Submitted Sample



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

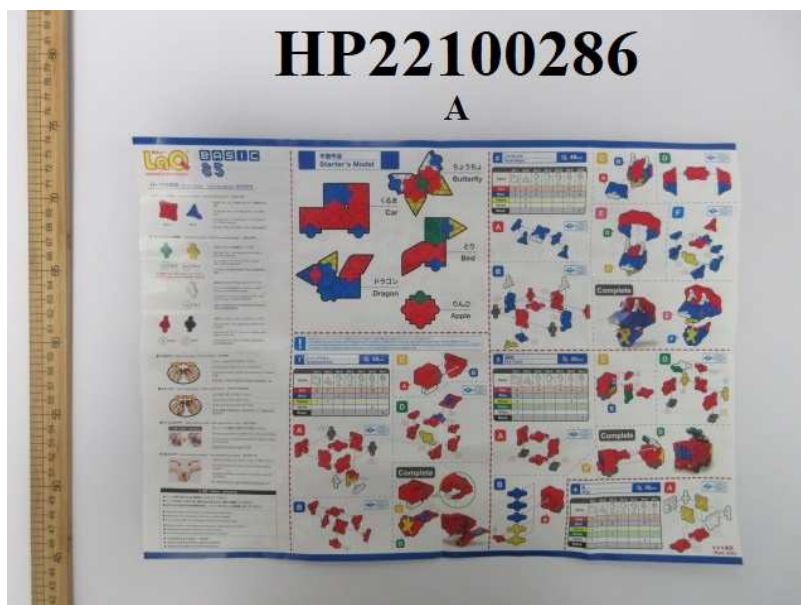
This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

Date : 2022-10-27  
No. : HP22100286

Page 42 of 79



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

Date : 2022-10-27

No. : HP22100286

Page 43 of 79



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

Date : 2022-10-27  
No. : HP22100286

Page 44 of 79



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27  
**No.** : HP22100286

Page 45 of 79



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

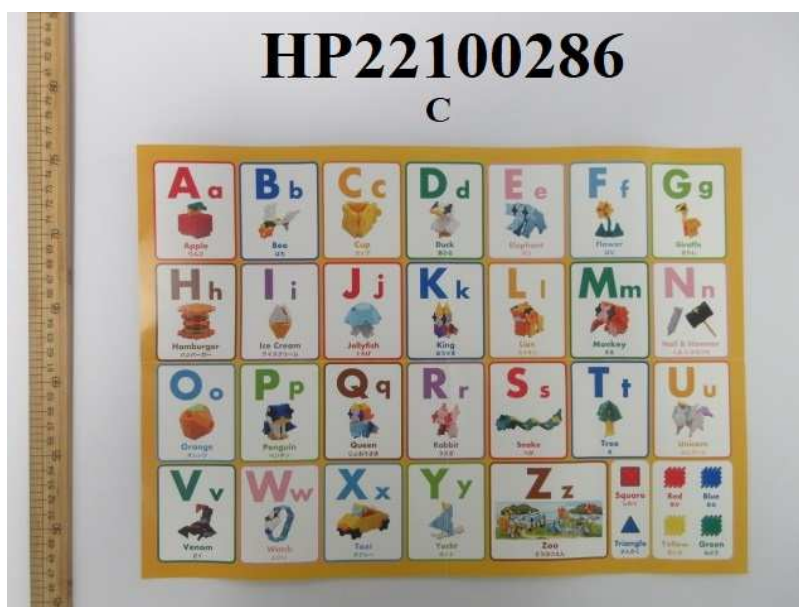
This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

Date : 2022-10-27  
No. : HP22100286

Page 46 of 79



## Test Report

Date : 2022-10-27  
No. : HP22100286

Page 47 of 79



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 48 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 49 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 50 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 51 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

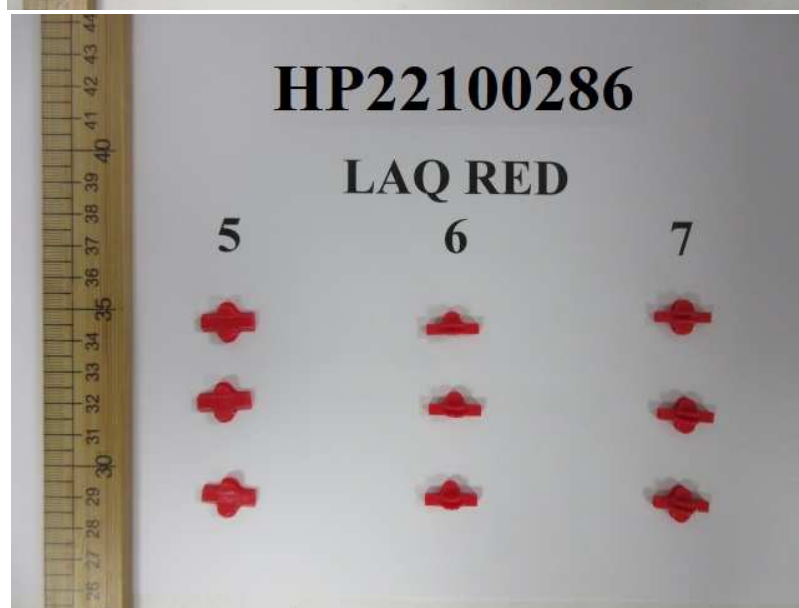


## Test Report

**Date** : 2022-10-27

Page 53 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 54 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

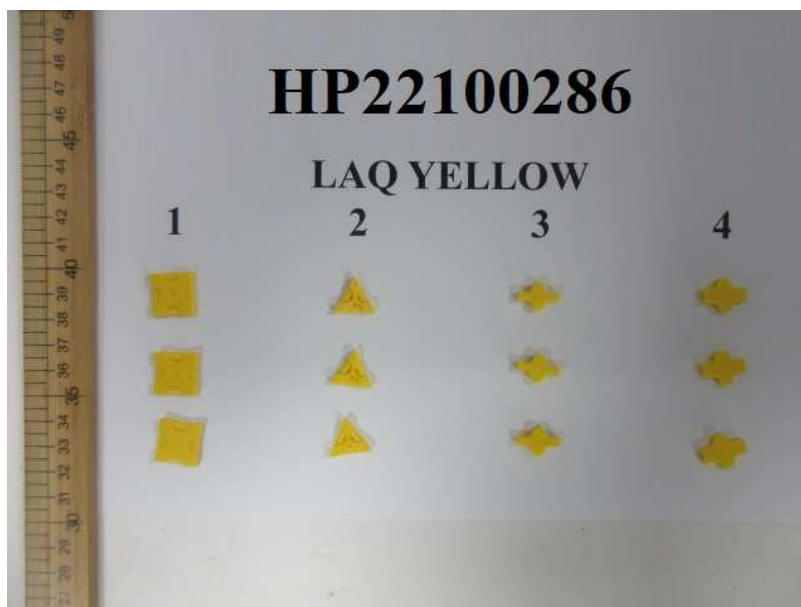


## Test Report

**Date** : 2022-10-27

Page 55 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

Date : 2022-10-27

Page 56 of 79

No. : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

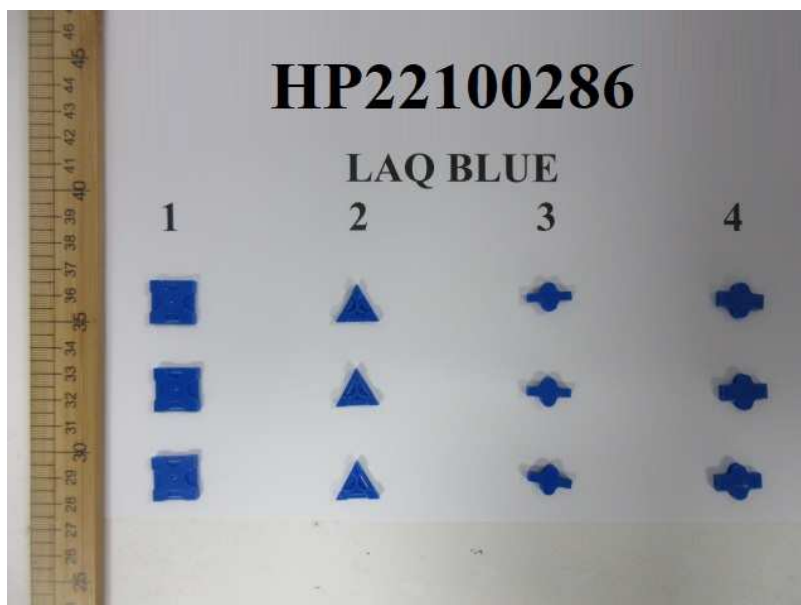


## Test Report

**Date** : 2022-10-27

Page 57 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

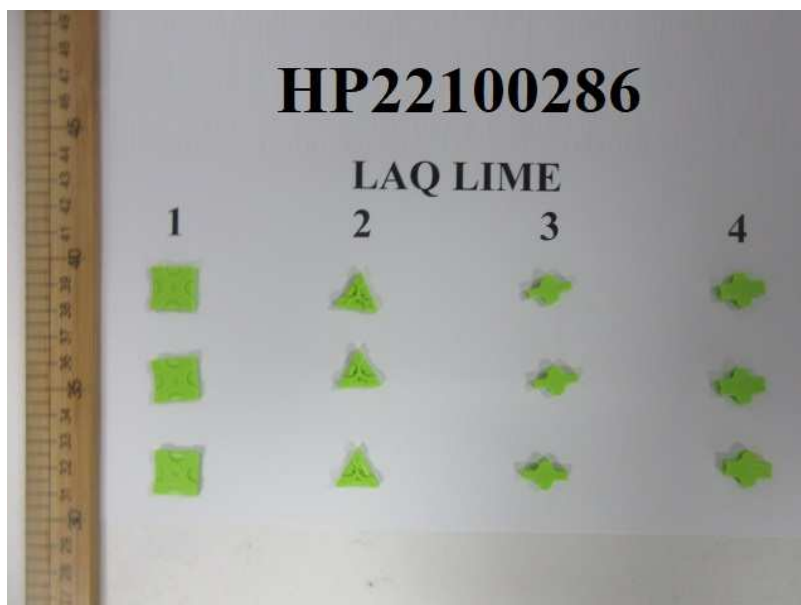
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 58 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

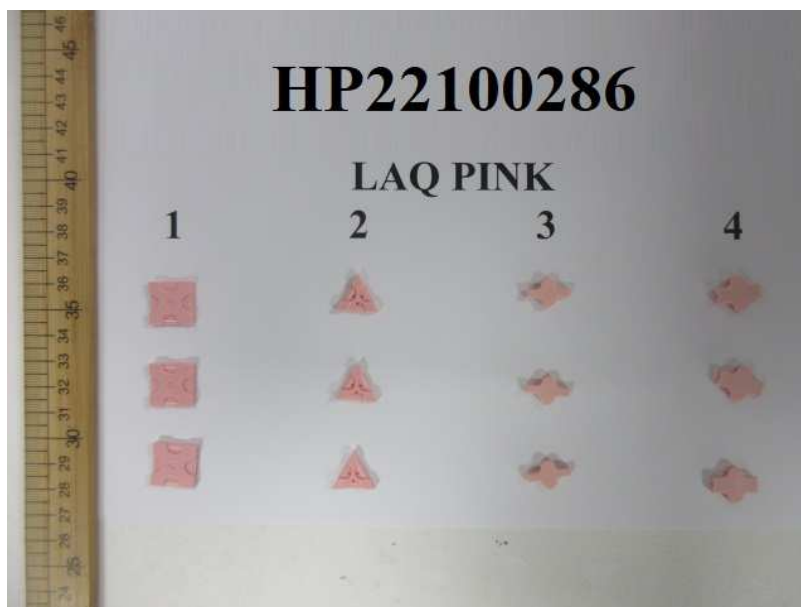
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 59 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 60 of 79

**No.** : HP22100286



## Test Report

**Date** : 2022-10-27

Page 61 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

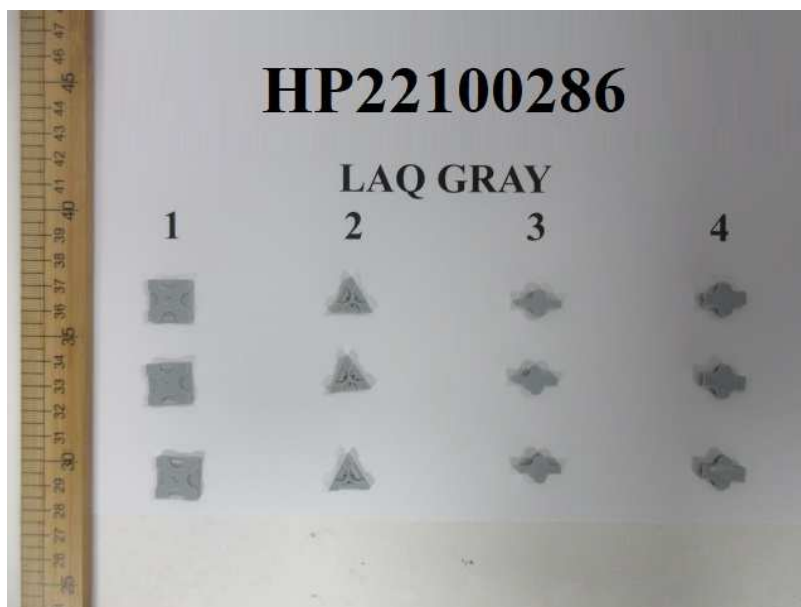
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 62 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taiipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 63 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 64 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 65 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

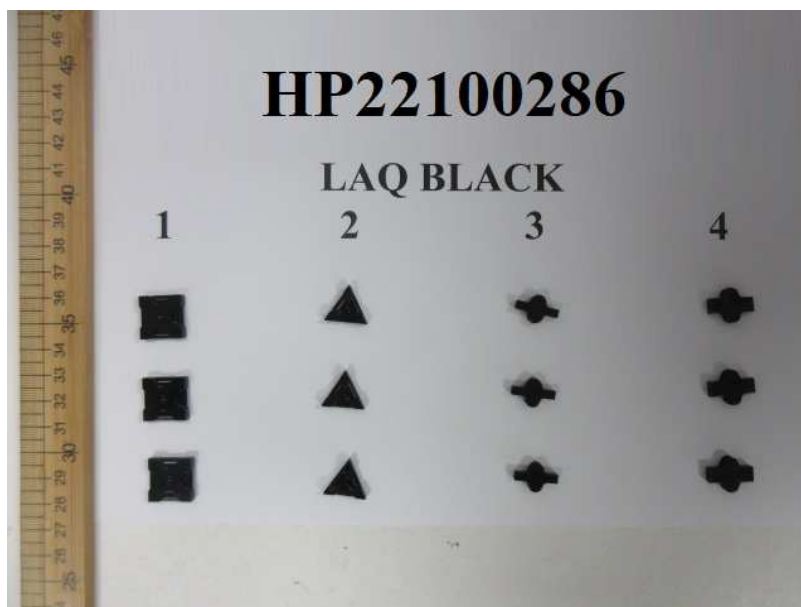
This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 66 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

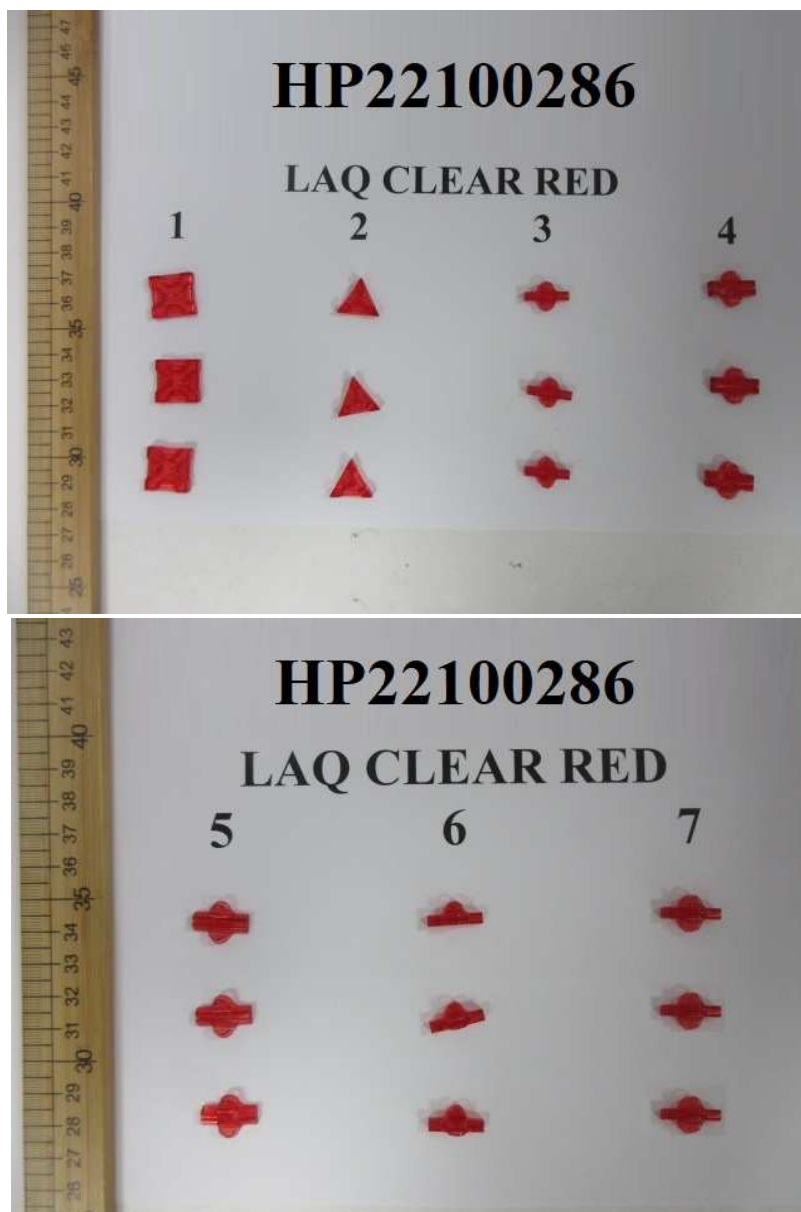
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

Date : 2022-10-27

Page 67 of 79

No. : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

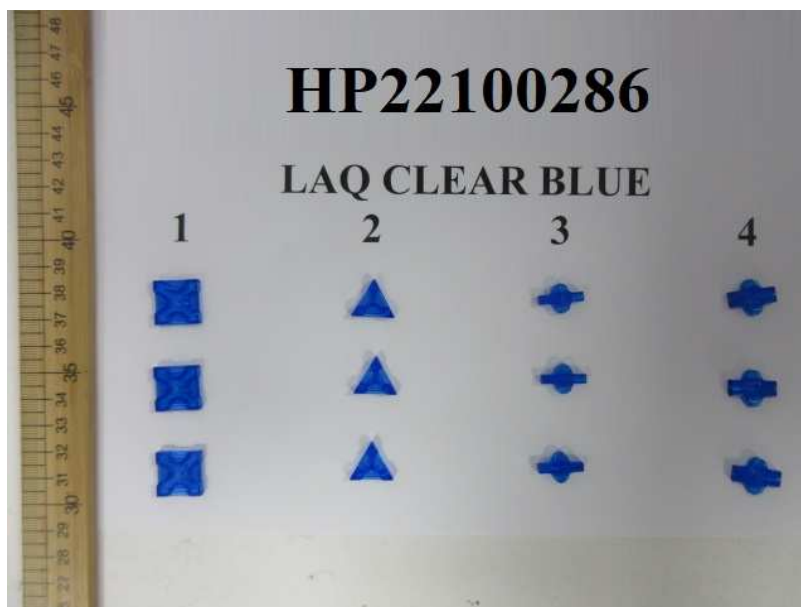
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 68 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

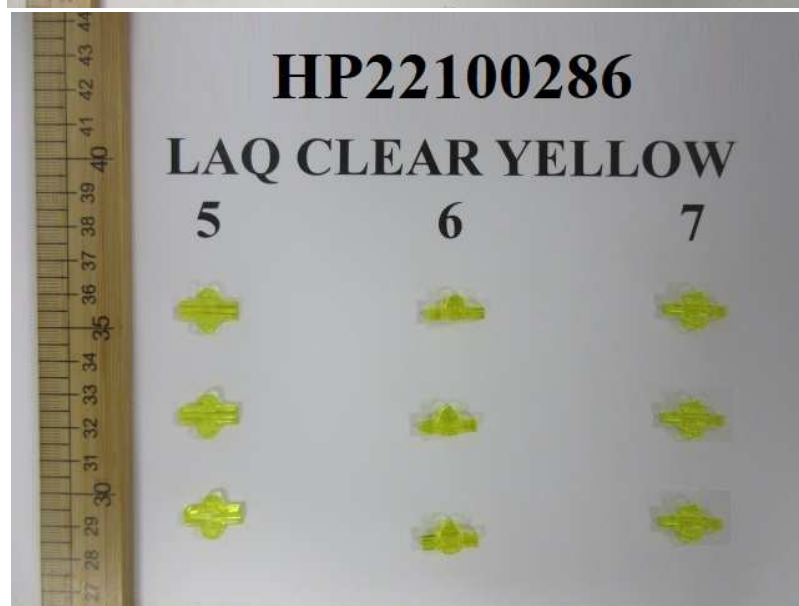
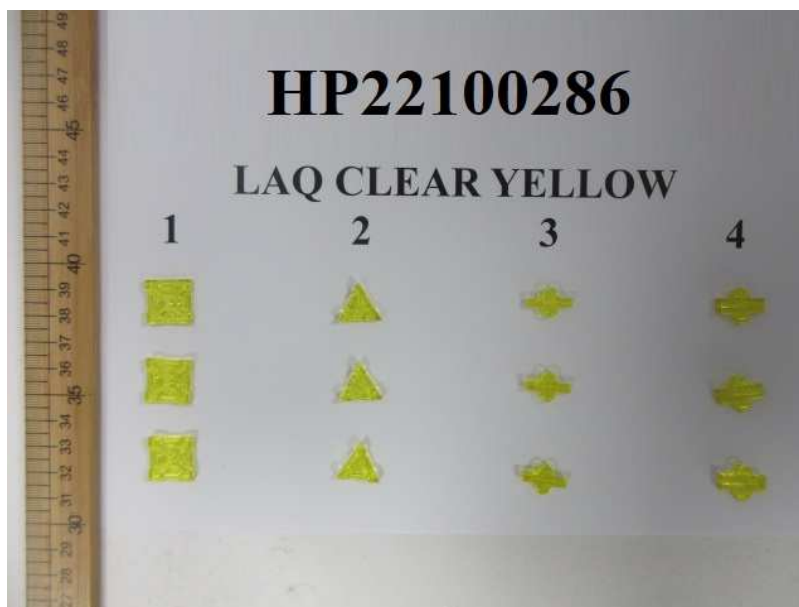
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 69 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 70 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 71 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 72 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27

Page 73 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27  
**No.** : HP22100286

Page 74 of 79



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Test Report

**Date** : 2022-10-27  
**No.** : HP22100286

Page 75 of 79



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.  
For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 76 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taiipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

Date : 2022-10-27

Page 77 of 79

No. : HP22100286



The Hong Kong Standards and Testing Centre Limited  
10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: hkstc@stc.group Website: www.stc.group

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 78 of 79

**No.** : HP22100286



The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.

## Test Report

**Date** : 2022-10-27

Page 79 of 79

**No.** : HP22100286



\*\*\*\*\* End of Test Report \*\*\*\*\*

The Hong Kong Standards and Testing Centre Limited

10 Dai Wang Street, Taiipo Industrial Estate, Tai Po, N.T., Hong Kong

Tel: +852 2666 1888 Fax: +852 2664 4353 Email: [hkstc@stc.group](mailto:hkstc@stc.group) Website: [www.stc.group](http://www.stc.group)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Limited.

For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



## Conditions of Issuance of Test Reports

1. All samples and goods are accepted by The Hong Kong Standards & Testing Centre Limited (the “Company”) solely for testing and reporting in accordance with the following terms and conditions. The Company provides its services on the basis that such terms and conditions constitute express agreement between the Company and any person, firm or company requesting its services (the “Clients”).
2. Any report issued by the Company as a result of this application for testing service (the “Report”) shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to his customer, supplier or other persons directly concerned. Subject to clause 3, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
3. The Company shall be at liberty to disclose the testing-related documents and/or files anytime to any third-party accreditation and/or recognition bodies for audit or other related purposes. No liabilities whatsoever shall attach to the Company's act of disclosure.
4. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
5. The results in Report apply only to the sample as received and do not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
6. When a statement of conformity to a specification or standard is provided, the ILAC-G8 Guidance document (and/or IEC Guide 115 in the electrotechnical sector) will be adopted as a decision rule for the determination of conformity unless it is inherent in the requested specification or standard, or otherwise specified in the Report.
7. In the event of the improper use the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
8. Sample submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
9. The Company will not be liable for or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
10. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
11. Subject to the variable length of retention time for test data and report stored hereinto as to otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of this test report for a period of three years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after the retention period. Under no circumstances shall we be liable for damages of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.
12. Issuance records of the Report are available on the internet at [www.stc.group](http://www.stc.group). Further enquiry of validity or verification of the Reports should be addressed to the Company.