

Test Report

Report No.: AGC04432190301-001

Date: Mar.20, 2019

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Applicant: SHANTOU CHENGHAI BINYUAN PLASTICS TOYS FACTORY

Address: Dengfeng Road Guangyi Street Chenghai Shantou Guangdong China

Report on the submitted sample(s) said to be:

Sample Name : building block

Item No. : Please refer to next page(s).

Labeled Age Grading : 3+

Requested Age Grading : 3+

Age Group Applied in Testing : 3+

Test site : 1,6/F.,Building 2,No. 1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Baoan District, Shenzhen, Guangdong, China

Sample Receiving Date : Mar.13, 2019

Testing Period : Mar.13, 2019 to Mar.19, 2019

Sample receiving state : Normal

Test Requested : Please refer to next page(s).

Test Method : Please refer to next page(s).

Test Result : Please refer to next page(s).

Approved by: _____

Liujinliang, Jay.Liu / Liulinwen, Lewis

Laboratory Supervisor / Technical Director



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Item No. :

PG10030A,PG10031A,PG10032A,PG10033A,PG10042A,PG10043A,
PG10044A,PG10045A,PG20001A,PG20002A,PG20003A,PG20004A,
PG20009A,PG20010A,PG20011A,PG20012A,PG20013A,PG20014A,
PG20015A,PG20016A,PG20017A,PG20018A,PG20019A,PG20020A,
PG20021A,PG20022A,PG20023A,PG20024A,PG20025A,PG20026A,
PG20027A,PG20028A,PG20030A,PG30001A,PG30002A,PG30003A,
PG30004A,PG30005A,PG30006A,PG30007A,PG30008A,PG30015A,
PG30016A,PG30017A,PG30018A,PG30019A,PG30020A,PG90001A,
PG90002A,PG90003A,PG90004A,PG90005A,PG90006A,PG90007A,
PG90008A,K7A,K8A,K12A,K14A,K15A,K16A,K17A,K18A,K19A,K21A,
K22A,K23A,K24A,K25A,K26A,K27A,K28A,K29A,K30A,K31A,K32A,
K33A,K34A,K35A,K36A,K37A,K38A,K34,K35,K7,K29,K27,K26,
K31,K32,PG50001A,PG50002A,PG50003A,PG50004A,PG50005A,
PG50006A,PG50007A,PG50008A,PG50009A,PG50010A

Test Requested:

1.ASTM Standard Consumer Safety Specification on Toy Safety F963-17:

- ASTM F963-17: Physical & Mechanical Tests

- ASTM F963-17: Flammability Tests

-ASTM F963-17: Toxicology

-Migration of Certain Elements and Total Lead Content

Conclusion

Pass

Pass

Pass

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Attestation of Global Compliance Std. & Tech.

No.18 C

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Test Results:

1.1 ASTM F 963-17 – Mechanical and physical hazards

Ref: ASTM F 963-17

Clause	Description	Result
4	Safety requirements	
4.1	Material Quality	Pass
4.4	Electrical/Thermal Energy	N/A
4.5	Sound Producing Toys	N/A
4.6	Small Objects	
4.6.1	Toys that are intended for children under 36 months	N/A
4.6.2	Mouth-Actuated Toys	N/A
4.6.3	Toys and games that are intended for use by children who are at least three years old (36 months) but less than six years of age (72 months)	Pass
4.7	Accessible Edges	Pass
4.8	Projections	N/A
4.9	Accessible Points	Pass
4.10	Wires or Rods	N/A
4.11	Nails and Fasteners	N/A
4.12	Plastic Film	N/A#
4.13	Folding Mechanisms and Hinges	
4.13.1	Folding Mechanisms	N/A
4.13.2	Hinge-Line Clearance	N/A
4.14	Cords and Elastics in Toys	N/A
4.15	Stability and Over-Load Requirements	N/A
4.16	Confined Spaces	N/A
4.17	Wheels, Tires, and Axles	N/A
4.18	Holes, Clearance, and Accessibility of Mechanisms	N/A
4.19	Simulated Protective Devices	N/A
4.20	Pacifiers	N/A
4.21	Projectile Toys	N/A

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4.22	Teethers and Teething Toys	N/A
4.23	Rattles	N/A
4.24	Squeeze Toys	N/A
4.25	Battery-Operated Toys	
4.25.1	The toy shall be marked permanently on the battery compartment or on the area immediately adjacent to the battery compartment to show the correct battery polarity using the polarity symbols “+” and “-”.	N/A
4.25.2	The maximum allowable direct current potential between any two accessible electrical points is 24 V nominal	N/A
4.25.3	Battery-operated toys shall be designed so that it is not possible to charge any non-rechargeable battery	N/A
4.25.4	For toys intended for children less than 3 years old, all batteries shall not be accessible	N/A
4.25.5	For all toys, batteries that fit completely within the small parts test cylinder shall not be accessible	N/A
4.25.6	Batteries of different types or capacities shall not be mixed within any single electrical circuit	N/A
4.25.7	The surfaces of the batteries shall not achieve temperatures exceeding 71°C	N/A
4.25.8	No condition shall occur that would cause the toy to fail the temperature requirements of 4.25.7 or present a combustion hazard as described in 4.25	N/A
4.25.9	Battery-operated toys shall meet the requirements of 6.5 for instructions on safe battery usage. Toys which use non-replaceable batteries as the only source of power are not subject to 6.5.	N/A
4.25.10	Battery-Powered Ride-On Toys	N/A
4.25.11	Toys that Contain Secondary Cells or Secondary Batteries:	N/A
4.26	Toys Intended to be Attached to a Crib or Playpen	N/A
4.27	Stuffed and Beanbag-Type Toys	N/A
4.28	Stroller and Carriage Toys	N/A
4.29	Art Materials	N/A
4.30	Toy Gun Marking	N/A
4.31	Balloons	N/A
4.32	Certain Toys with Nearly Spherical Ends	N/A
4.33	Marbles	N/A
4.34	Balls	N/A

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4.35	Pompoms	N/A
4.36	Hemispheric-Shaped Objects	N/A
4.37	Yo Yo Elastic Tether Toys	N/A
4.38	Magnets	N/A
4.39	Jaw Entrapment in Handles and Steering Wheels	N/A
4.40	Expanding Materials	N/A
4.41	Toy Chests	N/A
5	Safety Labeling Requirements	Pass
6	Instructional Literature	N/A
7	Producer's Markings	Pass

Note:

As per client's requirement, the sample(s) was evaluated for use by children 3+

N/A=Not Application

#= Clause 4.12: The flexible plastic sheeting area less than 100*100mm

Test Parameters for Use and Abuse Tests			
Test	Age Category of Intended User, months	Numerical Value	
		Stated by the Voluntary Standard	Recommended for Toy Manufacturers
Drop test	Over 36 to 96	4×3.0ft±0.5in.(91cm)	3ft,0.5in.(0.93m)
Torque test	Over 36 to 96	4±0.2in.·lbf(0.45N.m)	4.2in.·lbf(0.47N.m)
Tension test	Over 36 to 96	15±0.5lbf(66.8N)	15.5lbf(69.0N)
Compression test	Over 36 to 96	30±0.5lbf(133.5N)	30.5lbf(135.7N)

- ASTM F 963-17: Flammability Tests

ASTM F 963-17:Flammability testing procedure for solids and soft toys

Ref: ASTM F 963-17 Section 4.2

Method used: Federal Hazardous Substances Act (FHSA) 16 CFR 1500.44

Sample
building block

Burning Rate(inch/sec)
Did Not Ignite

Limit(inch/sec)
0.1

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-Migration of Certain Elements and Total Lead Content

Unit: mg/kg

Test Item(s)	Test Method/ Equipment	MDL	Result(s)					Limit
			1	2	3	4	5	
Arsenic As (M)	Refer to ASTM F963-17 ICP-OES	2.5	N.D.	N.D.	N.D.	N.D.	N.D.	25
Barium Ba (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Cadmium Cd (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	75
Chromium Cr (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	60
Mercury Hg (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	60
Lead Pb (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	90
Antimony Sb (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	60
Selenium Se (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	500
Conclusion	/	/	Pass	Pass	Pass	Pass	Pass	/

Unit: mg/kg

Test Item(s)	Test Method/ Equipment	MDL	Result(s)						Limit
			6	7	8	9	10	11	
Arsenic As (M)	Refer to ASTM F963-17 ICP-OES	2.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	25
Barium Ba (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Cadmium Cd (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	75
Chromium Cr (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	60
Mercury Hg (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	60
Lead Pb (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	90
Antimony Sb (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	60
Selenium Se (M)		5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	500
Conclusion	/	/	Pass	Pass	Pass	Pass	Pass	Pass	/

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Unit: mg/kg

Test Item(s)	Test Method/ Equipment	MDL	Result(s)				Limit
			1/2/3#	4/5/6#	7/8/9#	10/11#	
Lead Pb (T)	Refer to CPSC-CH-E1002-08.3 ICP-OES	5	N.D.	N.D.	N.D.	N.D.	100
Conclusion	/	/	Pass	Pass	Pass	Pass	/

- Note:**
1. MDL=method detection limit
 2. N.D.=not detected (less than method detection limit)
 3. In brackets : M= Migration, T= Total
 4. As specified by client, only test the designated sample.
 5. # =As specified by client, the submitted samples were mixed to test.

Sample Description

1.	Black plastic building blocks
2.	Blue plastic building blocks
3.	Black transparent plastic building blocks
4.	Gray plastic building blocks
5.	Blue transparent plastic building blocks
6.	Red plastic building blocks
7.	Red transparent plastic building blocks
8.	Military green plastic building blocks
9.	Brown plastic building blocks
10.	Yellow plastic building blocks
11.	White plastic building blocks

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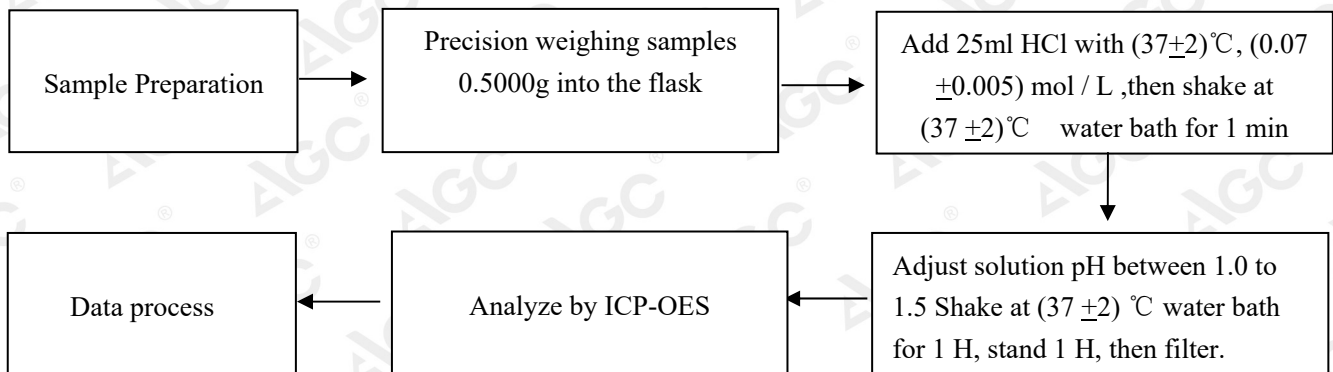
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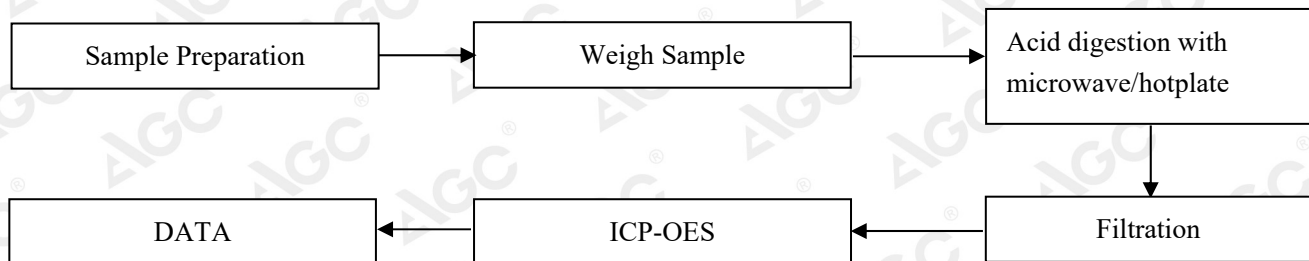
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Test Flow Chart

1.For Migration of As, Ba, Cd, Cr, Hg, Sb, Se, Pb



2.For Total Pb



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The photo of the sample



AGC authenticate the photo on original report only

*** End of Report***

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