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TEST REPORT

	OVERALL RATING					
×	PASS					
	FAIL					

Test information							
Applicant	:	NINGBO SHIMAOTONG INTERNATIONAL CO,.LTD					
Address	:	Room 1203, Building 004, 495 Jiangdong North Road, Yinzhou District, Ningbo City, Zhejiang Province					
Sample Description	:	Pigment set					
Style #	:	Not provided.					
Supplier	:	Not provided.					
Labeled Age Grade	:	 .					
Client Request Age Grade	:	3 years +.					
Age grade for testing	:	3 years +.					
Country of origin	:	China.					
Export to	:	Not provided.					
Buyer	:	Not provided.					
Receiving Date	:	October 21, 2022.					
Test period	:	October 21, 2022.~October 25, 2022.					
Test Requested	:	Tests requested in accordance to client requirement.					

Signed for and on behalf of

RTS TEST CO., LTD. (Z) resians)

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Scan to follow us

Scan for authenticity

Approved signatory



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TEST ITEMS	CONCLUSIONS
ASTM F963-17 - Mechanical and Physical Properties(Excepted clauses 4.29,,5,6&7 as per client's	PASS
request)	.,,,,,
ASTM F963-17 - Flammability test	PASS
ASTM F963-17 4.3.5.1 - Paint and Similar Surface-Coating Materials	PASS
ASTM F963-17 4.3.5.2 - Toy Substrate Materials	PASS



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Sample image:











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Sample image:



Test Number	Item/ component description(s)
А	Water color brush
A1	Red printing ink
A2	Green printing ink
А3	Yellow ink
A4	Blue ink
A5	Red plastic pen holder
A6	Blue plastic pen holder
A7	White plastic pen cap
A8	Translucence plastic cup



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Test result:

A. Standard Consumer Safety Specification For Toy Safety, ASTM F963-17-Mechanical and Physical Properties:

Clause	Test Items	Test Results
		A
4.	Safety Requirements	1
4.1	Material Quality	PASS
4.3.7	Stuffing Materials	N/A
4.4	Electrical/Thermal Energy	N/A
4.5	Sound-Producing Toys	N/A
4.6	Small Objects	N/A
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	N/A
4.14	Cords, Straps, and Elastics	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
4.22	Teethers and Teething Toys	N/A
4.23	Rattles	N/A
4.24	Squeeze Toys	N/A
4.25	Battery-Operated Toys	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/C
4.30	Toy Gun Marking	N/A
4.31	Balloons	N/A



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Clause	Test Items Certain Toys with Nearly Spherical Ends	A
4.00	Cortain Tays with Noarly Spharical Ends	
4.32	Certain Toys with Nearly Sprietical Ends	N/A
4.33	Marbles	N/A
4.34	Balls	N/A
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	Labeling Requirements	N/C
6	Instructional Literature	N/C
7	Producer's Markings	N/C
8.5	Normal Use Testing	PASS
8.5.1	Washable Toys	N/A
8.6	Abuse Testing	PASS
8.7	Impact Tests	PASS
8.7.1	Drop Test	PASS
8.7.2	Tipover Test for Large, Bulky Toys	N/A
8.7.3	Tumble Test for Wheeled Toys	N/A
8.7.4	Impact Test for Toys that Cover the Face	N/A
8.8	Torque Tests for Removal of Components	PASS
8.9	Tension Test for Removal of Components	PASS
8.9.1	Tension Test for Seams in Stuffed Toys and Beanbag	N/A
8.9.2	Tension Test for Suction Cups on Projectiles	N/A
8.10	Compression Test	N/A
8.11	Tests for Tire Removal and Snap-in Wheel and Axle Assembly Removal	N/A
8.12	Flexure Test	N/A

Remark: N/A= Not Applicable, N/C= Not Conducted as per client's request.



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Use and Abuse Tests:

The submitted samples were undergone the use and abuse tests in accordance with FHSA 16 CFR and whichever is applicable the tested age grade.

Age Category	Impact Test	Flexure Test	Torque Test	Tension Test	Compression Test
0-18 Months 16 CFR 1500.51	10 x 4.5 ft	120 Arc 30 Cycles 10 lbs	2 in-lbs	10 lbs	20 lbs
19-36 Months 16 CFR 1500.52	4 x 3 ft	120 Arc 30 Cycles 15 lbs	3 in-lbs	15 lbs	25 lbs
37-96 Months 16 CFR 1500.53 4 x 3 ft		120 Arc 30 Cycles 15 lbs	4 in-lbs	15 lbs	30 lbs

The clause and/or sub-clause would be indicated only in the test report whichever applicable. The comprehensive result report is available upon request



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B. Standard Consumer Safety Specification For Toy Safety, ASTM F963-17 Clause 4.2 Flammability test:

Test	Observation	Test Results A
Flammability of Solids	The burn rate is less than 0.1 in/sec.	PASS
Flammability of Fabrics	/	N/A

Remark: N/A= Not Applicable

Requirement:

1. Flammability of Solids: A toy / component is considered a "flammable solid" if it ignites and burns with a self-sustaining flame at a rate greater than 0.1 in/sec along its major axis.

2. Flammability of Textiles:

Plain Surface Fabrics	(1) All specimens either did not ignite, ignited but self extinguished, or any combination thereof.
	(2) Average burn time is 3.5 s or greater.
Raised Surface Fabrics	(1) All specimens either did not ignite, ignited but self extinguished, or any combination thereof.
	(2) Average burn time is 4 s or greater.
	(3) Average burn time is less than 4 s and all specimens burn with a surface flash where the
	intensity of the surface flame is insufficient to ignite, char, or melt the base fabric.
	(4) Only 1 of 5 specimens ignites and burns in less than 4s and the base fabric does not ignite or
	fuse, the sample is acceptable.
	(5) Only 1 of 5 specimens ignites or burns in more than 4s, regardless of whether the base fabric
	ignites or fuses, the sample is acceptable.



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C1. Soluble Heavy Metal Content in Coating Material: (Unit: mg/kg)

Standard Consumer Safety Specification For Toy Safety, ASTM F963-17 Clause 4.3.5.1.

Test method: With reference to ASTM F963-17 (Clause 8.3.2)-Soluble elements Test method, Analysis was performed by Inductively Coupled plasma atomic emission spectrometer (ICP-OES)

Test Number	Item/ component description(s)		
A1	Red printing ink		
A2	Green printing ink		
A3	Yellow ink		
A4	Blue ink		

Element(s)	Pb	Cd	Cr	Ва	As	Hg	Se	Sb	Canalysian
Limit(s)	90	75	60	1000	25	60	500	60	Conclusion
Test Number					Test r	esult(s)			
A1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS
A2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS
A3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS
A4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS

Note:

- 1) MDL=Method Detection Limit.
- 2) N.D. = not detected, less than 2.5 (As) 5(Cr.Sb.Cd.Pb) 2(Hg) 10(Ba.Se).
- 3)"▲" = This data is obtained from composite testing on more than one materials or shapes, it is possible that result obtained from individual testing on any one of the materials or shapes is substantially higher. Please be cautious when using this data for compliance evaluation.



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C2. Soluble Heavy Metal Content in Substrate Material: (Unit: mg/kg)

Standard Consumer Safety Specification For Toy Safety, ASTM F963-17 Clause 4.3.5.2.

Test method: With reference to ASTM F963-17 (Clause 8.3.5)-Soluble elements Test method, Analysis was performed by Inductively Coupled plasma atomic emission spectrometer (ICP-OES)

Test Number	Item/ component description(s)		
A5	Red plastic pen holder		
A6	Blue plastic pen holder		
A7	White plastic pen cap		
A8	Translucence plastic cup		

Element(s)	Pb	Cd	Cr	Ва	As	Hg	Se	Sb	Conclusion
Limit(s)	90	75	60	1000	25	60	500	60	
Test Number	Test result(s)								
A5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS
A6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS
A7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS
A8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	PASS

Note:

- 1) MDL=Method Detection Limit.
- 2) N.D. = not detected, less than 2.5 (As) 5(Cr.Sb.Cd.Pb) 2(Hg) 10(Ba.Se).
- 3)"▲" = This data is obtained from composite testing on more than one materials or shapes, it is possible that result obtained from individual testing on any one of the materials or shapes is substantially higher. Please be cautious when using this data for compliance evaluation.

