

GUANGDONG WONDER TESTING INTERNATIONAL CO., LTD.

TEST REPORT

Report No.: WDX23050675

Applicant: NINGBO DIRECT EDUCATION
RESOURCES MANUFACTURING CO.,LTD

Address: Room 1509#, Titan Building, No.538 Tiantong
south road, Yinzhou district, NingBo

Date: May 19, 2023

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Applicant: NINGBO DIRECT EDUCATION RESOURCES MANUFACTURING CO.,LTD**Address:** Room 1509#, Titan Building, No.538 Tiantong south road, Yinzhou district, NingBo

The following merchandise was (were) submitted and identified by client as:

Sample Name: EASY GRIP CRAYON CRAYON REFILL GIANT CRAYON MARKER GIANT CRAYON REFILL EASY GRIP CHALKS (HANDLES ONLY) GIANT CHALK MARKER (PLASTIC ONLY)**Number of Sample:** AP/2023/EGC RE/2023/EGC
AP/2084/RCR RE/2084/RCR
AP/2060/GCPM RE/2060/GCPM
AP/2086/RCR RE/2086/RCR
AP/2082/EGC RE/2082/EGC
AP/2059/RCH RE/2059/RCH**Style of Sample:** 2PCS**Applicant's Specified** 2+:**Testing Age Group:** AP/2023/EGC RE/2023/EGC
AP/2084/RCR RE/2084/RCR
AP/2086/RCR RE/2086/RCR
AP/2082/EGC RE/2082/EGC
3+:
AP/2060/GCPM RE/2060/GCPM
AP/2059/RCH RE/2059/RCH**Tested Age Grading:** 2+:
AP/2023/EGC RE/2023/EGC
AP/2084/RCR RE/2084/RCR
AP/2086/RCR RE/2086/RCR
AP/2082/EGC RE/2082/EGC
3+:
AP/2060/GCPM RE/2060/GCPM
AP/2059/RCH RE/2059/RCH**Labelled Age Group:** 2+:
AP/2082/EGC RE/2082/EGC
AP/2023/EGC RE/2023/EGC**Sample Received Date:** May 17, 2023**Completed Date:** May 19, 2023**Test Result(s):** Please refer to next page(s).**Test Requested and Conclusion(s):** Please refer to next page(s).


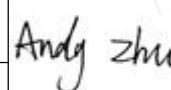
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Test Requested and Conclusion(s):

No.	Test Sample(s)	Standard(s) and Requirement(s)	Conclusion(s)	Signed by
1	Submitted sample	EN 71-1:2014+A1:2018 - Physical and Mechanical Properties (See the next page for specific sections)	PASS	
2	Submitted sample	EN 71-2:2020 - Flammability	PASS	
3	Tested materials of submitted samples	EN 71-3:2019+A1:2021 - Migration of certain elements (Category III)	PASS	
4	Tested materials of submitted samples	EN 71-3:2019+A1:2021 - Migration of certain elements (Category I)	PASS	

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Test Result(s):

EN 71-1:2014+A1:2018 - Mechanical and Physical Properties

Section(s)	Test Item(s)	Assessment(s)
		23
4	Safety requirements	PASS
4.1	Material quality	PASS
4.2	Assembly	NA
4.3	Flexible Plastic Sheeting	NA
4.4	Toy Bags	NA
4.5	Glass	NA
4.6	Expanding Materials	NA
4.7	Edges	PASS
4.8	Points and Metallic Wires	PASS
4.9	Protruding Parts	NA
4.10	Parts moving against each other	NA
4.11	Mouth Actuated Toys And Other Toys Intended To Be Put In The Mouth	NA
4.12	Balloons	NA
4.13	Cords of Toy Kites and Other Flying Toys	NA
4.14	Enclosures	NA
4.15	Toys intended to bear the mass of a child	NA
4.16	Heavy immobile toys	NA
4.17	Projectiles	NA
4.18	Aquatic Toys And Inflatable Toys	NA
4.19	Percussion caps specifically designed for use in toys and toys using percussion caps	NA
4.20	Acoustics	NA
4.21	Toys containing a non-electrical heat source	NA
4.22	Small balls	NA
4.23	Magnets	NA
4.24	Yo-Yo balls	NA
4.25	Toys Attached To Food	NA
4.26	Toy Disguise Costumes	NA
4.27	Flying toys	NA
5	Toys intended for children under 36 months (Washing/ Cleaning instruction)	PASS
5.1	General Requirements	PASS
5.2	Soft-filled Toys And Soft-filled Parts of a Toy	NA

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Section(s)	Test Item(s)	Assessment(s)
		23
5.3	Plastic Sheeting	NA
5.4	Cords, chains and electrical cables in toys	NA
5.5	Liquid-Filled Toys	NA
5.6	Speed limitation of electrically driven ride-on toys	NA
5.7	Glass and Porcelain	NA
5.8	Shape and Size of certain Toys	NA
5.9	Toys comprising Monofilament Fibres	NA
5.10	Small balls	NA
5.11	Play figures	NA
5.12	Hemispheric-shaped toys	NA
5.13	Suction cups	NA
5.14	Straps intended to be worn fully or partially around the neck	NA
5.15	Sledges with cords for pulling	NA
6	Packaging	PASS
7	Warnings, markings and Instructions for use	NA
7.1	General	NA
7.2	Toys not intended for children under 36 months	NA
7.3	Latex balloons	NA
7.4	Aquatic Toys	NA
7.5	Functional Toys	NA
7.6	Hazardous sharp Functional Edges and Points	NA
7.7	Projectiles	NA
7.8	Imitation protective masks and helmets	NA
7.9	Toy Kites	NA
7.10	Roller skates, inline skates, skateboards and certain other ride-on toys	NA
7.11	Toys intended to be attached to or strung across a cradle, cot, or perambulator	NA
7.12	Liquid-filled teethingers	NA
7.13	Percussion caps specifically designed for use in toys	NA
7.14	Acoustics	NA
7.15	Toy bicycles	NA
7.16	Toys intended to bear the mass of a child	NA
7.17	Toys comprising monofilament fibres	NA
7.18	Toy scooters	NA

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Section(s)	Test Item(s)	Assessment(s)
		23
7.19	Rocking horses and similar toys	NA
7.20	Magnetic/ electrical experimental sets	NA
7.21	Toys with electrical cables exceeding 300 mm in length	NA
7.22	Toys with cords or chains intended for children of 18 months and over but under 36 months	NA
7.23	Toys intended to be attached to a cradle, cot or perambulator	NA
7.24	Sledges with cords for pulling	NA
7.25	Flying toys	NA
7.26	Improvised projectiles	NA

Note: The test age group of the sample is specified by client.

Use and Abuse Tests

Section(s)	Test Item(s)	Test Parameter(s)
8.3	Torque test	0.34N.m 10s
8.4	Tension test	90N 10s
8.5	Drop test	5×850mm

Test Result(s):

Labeling requirements:

2009/48/EC – safety of toys

Test Item(s)	Result(s)
	23
Importer's or Manufacturer's Name	YES
Importer's or Manufacturer's address	YES
Product ID	YES
CE mark (≥5mm)	YES

- Note:**
1. The test age group of the sample is specified by client.
 2. Above are additional information according to the Toy Safety Directive 2009/48/EC requirement. These information also appears as a note within the EN 71 but are not standard requirements and not accredited
 3. According to Directive 2009/48/EC, a toy intended for use by children under 36 months must be designed and manufactured in such a way that it can be cleaned. A textile toy must, to this end, be washable, except if it contains a mechanism that may be damaged if soak washed. The manufacturer should, if applicable, provide instructions on how the toy has to be cleaned.
 4. The manufacturer's name and registered trade name or registered trade mark and the address at which the manufacturer can be contacted shall be indicated on the toy or, where that is not possible, on its packaging or in a document accompanying the toy. This requirement applies also to the name and address etc. of any importer.
 5. Manufacturers shall ensure that their toys bear a type, batch, serial or model number or other element allowing their identification, or where the size or natural of the toys does not allow, that the required information is provided on the packaging or in a document accompanying the toy.
 6. CE marking should be visible from outside the packaging and its height must be at least 5 mm.

Test Result(s):**EN71-2:2020 - Flammability**

Section(s)	Test Item(s)	Assessment(s)
		23
4.1	General requirements	PASS
4.2	Toys to be worn on the head	NA
4.3	Toy disguise costumes and toys intended to be worn by a child in play	NA
4.4	Toys intended to be entered by a child	NA
4.5	Soft-filled toys	NA

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Test Result(s):

EN 71-3:2019+A1:2021 - Migration of Certain Elements (Category III)

Method: General elements, with reference to EN 71-3:2019+A1:2021, analyzed by ICP-OES /ICP-MS;

Chromium(VI), with reference to EN 71-3:2019+A1:2021, analyzed by LC-ICP-MS;

Organic tin, with reference to EN 71-3:2019+A1:2021, analyzed by GC-MS.

Test Element(s)	RL (mg/kg)	Limit(s) (mg/kg)	Result(s) (mg/kg)	
			1	2
Lead (Pb)	0.2	23	0.2	ND
Antimony (Sb)	2	560	ND	ND
Arsenic (As)	0.5	47	ND	ND
Barium (Ba)	50	18750	ND	ND
Selenium (Se)	5	460	ND	ND
Cadmium (Cd)	0.2	17	ND	ND
Mercury (Hg)	1	94	ND	ND
Chromium #	0.2	--	ND	ND
Chromium(III) ^{#1}	0.2	460	ND	ND
Chromium(VI)	0.005	0.053	ND	ND
Nickel (Ni)	10	930	ND	ND
Tin (Sn)	0.2	180000	0.2	ND
Organic tin ^{#2}	0.2	12	ND	ND
Aluminum (Al) ^{#3}	50	28130	ND	ND
Copper (Cu)	50	7700	ND	ND
Cobalt (Co)	2	130	ND	ND
Boron (B)	50	15000	ND	ND
Manganese (Mn)	50	15000	ND	ND
Strontium (Sr)	50	56000	ND	ND
Zinc (Zn)	50	46000	ND	ND
Conclusion(s)			PASS	PASS

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Test Result(s):

EN 71-3:2019+A1:2021 - Migration of Certain Elements (Category III)

Method: General elements, with reference to EN 71-3:2019+A1:2021, analyzed by ICP-OES /ICP-MS;

Chromium(VI), with reference to EN 71-3:2019+A1:2021, analyzed by LC-ICP-MS;

Organic tin, with reference to EN 71-3:2019+A1:2021, analyzed by GC-MS.

Test Element(s)	RL (mg/kg)	Limit(s) (mg/kg)	Result(s) (mg/kg)			
			3	4	5	12
Lead (Pb)	0.2	23	ND	ND	ND	ND
Antimony (Sb)	2	560	ND	ND	ND	ND
Arsenic (As)	0.5	47	ND	ND	ND	ND
Barium (Ba)	50	18750	ND	ND	ND	ND
Selenium (Se)	5	460	ND	ND	ND	ND
Cadmium (Cd)	0.2	17	ND	ND	ND	ND
Mercury (Hg)	1	94	ND	ND	ND	ND
Chromium #	0.2	--	ND	ND	ND	ND
Chromium(III) ^{#1}	0.2	460	ND	ND	ND	ND
Chromium(VI)	0.005	0.053	ND	ND	ND	ND
Nickel (Ni)	10	930	ND	ND	ND	ND
Tin (Sn)	0.2	180000	ND	ND	ND	ND
Organic tin ^{#2}	0.2	12	ND	ND	ND	ND
Aluminum (Al) ^{#3}	50	28130	ND	ND	ND	ND
Copper (Cu)	50	7700	ND	ND	ND	ND
Cobalt (Co)	2	130	ND	ND	ND	ND
Boron (B)	50	15000	ND	ND	ND	ND
Manganese (Mn)	50	15000	ND	ND	ND	ND
Strontium (Sr)	50	56000	ND	ND	ND	ND
Zinc (Zn)	50	46000	ND	ND	ND	ND
Conclusion(s)			PASS	PASS	PASS	PASS

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Test Result(s):

EN 71-3:2019+A1:2021 - Migration of Certain Elements (Category III)

Method: General elements, with reference to EN 71-3:2019+A1:2021, analyzed by ICP-OES /ICP-MS;

Chromium(VI), with reference to EN 71-3:2019+A1:2021, analyzed by LC-ICP-MS;

Organic tin, with reference to EN 71-3:2019+A1:2021, analyzed by GC-MS.

Test Element(s)	RL (mg/kg)	Limit(s) (mg/kg)	Result(s) (mg/kg)			
			13	20	21	22
Lead (Pb)	0.2	23	ND	ND	ND	ND
Antimony (Sb)	2	560	ND	ND	ND	ND
Arsenic (As)	0.5	47	ND	ND	ND	ND
Barium (Ba)	50	18750	ND	ND	ND	ND
Selenium (Se)	5	460	ND	ND	ND	ND
Cadmium (Cd)	0.2	17	ND	ND	ND	ND
Mercury (Hg)	1	94	ND	ND	ND	ND
Chromium #	0.2	--	ND	ND	ND	ND
Chromium(III) ^{#1}	0.2	460	ND	ND	ND	ND
Chromium(VI)	0.005	0.053	ND	ND	ND	ND
Nickel (Ni)	10	930	ND	ND	ND	ND
Tin (Sn)	0.2	180000	ND	0.2	ND	ND
Organic tin ^{#2}	0.2	12	ND	ND	ND	ND
Aluminum (Al) ^{#3}	50	28130	ND	ND	ND	ND
Copper (Cu)	50	7700	ND	ND	ND	ND
Cobalt (Co)	2	130	ND	ND	ND	ND
Boron (B)	50	15000	ND	ND	ND	ND
Manganese (Mn)	50	15000	ND	ND	ND	ND
Strontium (Sr)	50	56000	ND	ND	ND	ND
Zinc (Zn)	50	46000	ND	ND	ND	ND
Conclusion(s)			PASS	PASS	PASS	PASS

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Test Result(s):**EN 71-3:2019+A1:2021 - Migration of Certain Elements (Category I)**

Method: General elements, with reference to EN 71-3:2019+A1:2021, analyzed by ICP-OES /ICP-MS;

Chromium(VI), with reference to EN 71-3:2019+A1:2021, analyzed by LC-ICP-MS;

Organic tin, with reference to EN 71-3:2019+A1:2021, analyzed by GC-MS.

Test Element(s)	RL (mg/kg)	Limit(s) (mg/kg)	Result(s) (mg/kg)			
			6	7	8	9
Lead (Pb)	0.2	2.0	ND	0.7	ND	ND
Antimony (Sb)	2	45	ND	ND	ND	ND
Arsenic (As)	0.5	3.8	ND	ND	ND	ND
Barium (Ba)	50	1500	ND	ND	ND	ND
Selenium (Se)	5	37.5	ND	ND	ND	ND
Cadmium (Cd)	0.2	1.3	ND	ND	ND	ND
Mercury (Hg)	1	7.5	ND	ND	ND	ND
Chromium #	0.2	--	ND	ND	ND	ND
Chromium(III) ^{#1}	0.2	37.5	ND	ND	ND	ND
Chromium(VI)	0.005	0.02	ND	ND	ND	ND
Nickel (Ni)	10	75	ND	ND	ND	ND
Tin (Sn)	0.2	15000	ND	ND	ND	ND
Organic tin ^{#2n}	0.2	0.9	ND	ND	ND	ND
Aluminum (Al) ^{#3}	50	2250	ND	ND	ND	ND
Copper (Cu)	50	622.5	ND	ND	ND	ND
Cobalt (Co)	2	10.5	ND	ND	ND	ND
Boron (B)	50	1200	ND	ND	ND	ND
Manganese (Mn)	50	1200	ND	ND	ND	ND
Strontium (Sr)	50	4500	ND	ND	ND	ND
Zinc (Zn)	50	3750	ND	ND	ND	ND
Conclusion(s)			PASS	PASS	PASS	PASS

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Test Result(s):

EN 71-3:2019+A1:2021 - Migration of Certain Elements (Category I)

Method: General elements, with reference to EN 71-3:2019+A1:2021, analyzed by ICP-OES /ICP-MS;

Chromium(VI), with reference to EN 71-3:2019+A1:2021, analyzed by LC-ICP-MS;

Organic tin, with reference to EN 71-3:2019+A1:2021, analyzed by GC-MS.

Test Element(s)	RL (mg/kg)	Limit(s) (mg/kg)	Result(s) (mg/kg)			
			10	11	14	15
Lead (Pb)	0.2	2.0	ND	ND	ND	0.2
Antimony (Sb)	2	45	ND	ND	ND	ND
Arsenic (As)	0.5	3.8	ND	ND	ND	ND
Barium (Ba)	50	1500	ND	ND	ND	ND
Selenium (Se)	5	37.5	ND	ND	ND	ND
Cadmium (Cd)	0.2	1.3	ND	ND	ND	ND
Mercury (Hg)	1	7.5	ND	ND	ND	ND
Chromium [#]	0.2	--	ND	ND	ND	ND
Chromium(III) ^{#1}	0.2	37.5	ND	ND	ND	ND
Chromium(VI)	0.005	0.02	ND	ND	ND	ND
Nickel (Ni)	10	75	ND	ND	ND	ND
Tin (Sn)	0.2	15000	0.2	ND	ND	ND
Organic tin ^{#2n}	0.2	0.9	ND	ND	ND	ND
Aluminum (Al) ^{#3}	50	2250	ND	ND	ND	ND
Copper (Cu)	50	622.5	ND	ND	ND	ND
Cobalt (Co)	2	10.5	ND	ND	ND	ND
Boron (B)	50	1200	ND	ND	ND	ND
Manganese (Mn)	50	1200	ND	ND	ND	ND
Strontium (Sr)	50	4500	ND	ND	ND	ND
Zinc (Zn)	50	3750	ND	ND	ND	ND
Conclusion(s)			PASS	PASS	PASS	PASS

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Test Result(s):**EN 71-3:2019+A1:2021 - Migration of Certain Elements (Category I)**

Method: General elements, with reference to EN 71-3:2019+A1:2021, analyzed by ICP-OES /ICP-MS;

Chromium(VI), with reference to EN 71-3:2019+A1:2021, analyzed by LC-ICP-MS;

Organic tin, with reference to EN 71-3:2019+A1:2021, analyzed by GC-MS.

Test Element(s)	RL (mg/kg)	Limit(s) (mg/kg)	Result(s) (mg/kg)			
			16	17	18	19
Lead (Pb)	0.2	2.0	ND	0.2	0.2	0.2
Antimony (Sb)	2	45	ND	ND	ND	ND
Arsenic (As)	0.5	3.8	ND	ND	ND	ND
Barium (Ba)	50	1500	ND	ND	ND	ND
Selenium (Se)	5	37.5	ND	ND	ND	ND
Cadmium (Cd)	0.2	1.3	ND	ND	ND	ND
Mercury (Hg)	1	7.5	ND	ND	ND	ND
Chromium [#]	0.2	--	ND	ND	ND	ND
Chromium(III) ^{#1}	0.2	37.5	ND	ND	ND	ND
Chromium(VI)	0.005	0.02	ND	ND	ND	ND
Nickel (Ni)	10	75	ND	ND	ND	ND
Tin (Sn)	0.2	15000	ND	ND	ND	ND
Organic tin ^{#2n}	0.2	0.9	ND	ND	ND	ND
Aluminum (Al) ^{#3}	50	2250	ND	ND	ND	ND
Copper (Cu)	50	622.5	ND	ND	ND	ND
Cobalt (Co)	2	10.5	ND	ND	ND	ND
Boron (B)	50	1200	ND	ND	ND	ND
Manganese (Mn)	50	1200	ND	ND	ND	ND
Strontium (Sr)	50	4500	ND	ND	ND	ND
Zinc (Zn)	50	3750	ND	ND	ND	ND
Conclusion(s)			PASS	PASS	PASS	PASS

- Note:**
1. “#” = If the migration of total Chromium is below the maximum limit for Chromium (VI), it can be inferred that the material complies with the requirements for both Chromium(III) and Chromium(VI).
 2. “#1” = In particular Chromium (III) is calculated by subtracting the Chromium (VI) concentration from the total chromium concentration.
 3. “#2” = The migration of organic tin is expressed as tributyltin.
 4. “#3” = The migration limits for Aluminum have been amended by Commission Directive (EU) 2019/1922. The new limit values (2250 mg/kg, 560 mg/kg and 28130 mg/kg, respectively) apply from 2021-05-20. Before this date the limit values 5625 mg/kg, 1406 mg/kg and 70000 mg/kg, respectively, apply.

- Remark :**
1. mg/kg = milligram per kilogram(ppm).
 2. ND = Not Detected (< RL).
 3. RL = Report Limit.
 4. NA = Not Applicable.
 5. “--” = Not Regulated.
 6. As per client's request, only the appointed points and items have been tested.

Test Material List

Material No.	Description(s)	Location(s)
1	Green plastic	Lid
2	Transparent plastic	Box body
3	Light green plastic	Crayon holder
4	Green plastic	Crayon holder
5	Orange plastic	Crayon holder
6	Black crayon	Crayon
7	Purple crayon	Crayon
8	Yellow crayon	Crayon
9	Red crayon	Crayon
10	Green crayon	Crayon
11	Pink crayon	Crayon
12	Sky blue plastic	Crayon holder
13	Blue-green plastic	Crayon holder
14	White chalk	Chalk
15	Nude chalk	Chalk
16	Blue chalk	Chalk
17	Yellow chalk	Chalk

Material No.	Description(s)	Location(s)
18	Pink chalk	Chalk
19	Light green chalk	Chalk
20	Red plastic	Semi-circular model
21	White plastic	Screw
22	Black elastic band	Elastic band
23	Crayon series	overall

Photo(s) of Sample(s):



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End of Report

Report Remark

1. The company guarantees the scientificity, impartiality and accuracy, is responsible for test data, and keeps confidential for the samples and technical data provided.
2. The information of the samples submitted for inspection is provided by applicant, and the company is not responsible for its authenticity or integrity.
3. The results shown in this report refer only to the sample(s) submitted.
4. This report is invalid without signature of approver, is invalid if not affixed with Authorized Stamp of Test and Paging Seal. The data/results in reports without an CMA stamp ,all or part of items of this report are not in the accredited scope of CMA cannot be as domestic social impartiality proof data. It can only used for research and development, teaching, internal quality control, and only for internal reference.
5. Any unauthorized reproduced in part, Any way of piracy, alteration forgery of this report is unlawful.
6. If there are any questions about the report, please contact us.
7. Any dispute of this report must be raised to the center within 10 workdays since the date of receipt, or it will not be accepted.
8. For samples with unstable performance, re-inspection will not be accepted.

CONTACT US

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