



TEST REPORT

Report No. 010222110040

DATED: 27 DECEMBER 2022

Client : PLAN CREATIONS CO., LTD.
8 MOO 8, TRANG-PALIAN RD.,
YANTAKAO, TRANG 92140 THAILAND

Buyer : /

Sample Description : RECTANGULAR PUZZLE

Item No. : 4652

SKU No. : /

Model / Style : /

Age Grade : 3-99Y

Manufacturer : /

Country of Origin : THAILAND

Country of Destination : /

Test Sample Received : RECEIVED ON 20/12/2022

Test Period : FROM 20/12/2022 TO 27/12/2022

TEST REQUESTED	CONCLUSION	REMARK
EN 71-1:2014+A1:2018 – PHYSICAL AND MECHANICAL PROPERTIES	PASS	-
EN 71-2:2020 – FLAMMABILITY	PASS	-
EN 71-3:2019+A1:2021 – MIGRATION OF CERTAIN ELEMENTS	PASS	-

For technical enquiries or any other concerns,
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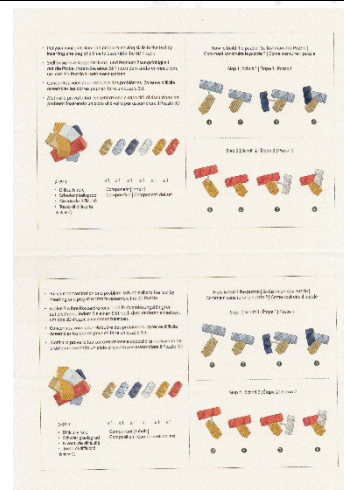
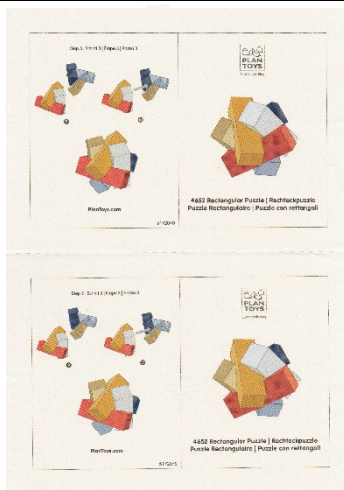
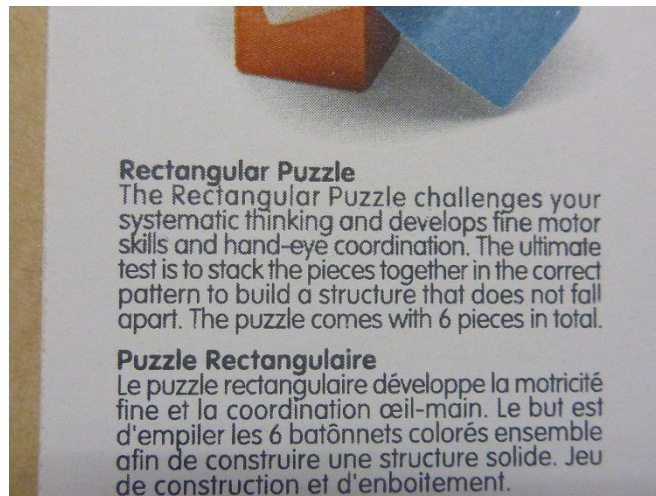
GIC Testing & Inspection Services Pte Ltd

158 Kallang Way #08-01
Singapore 349245

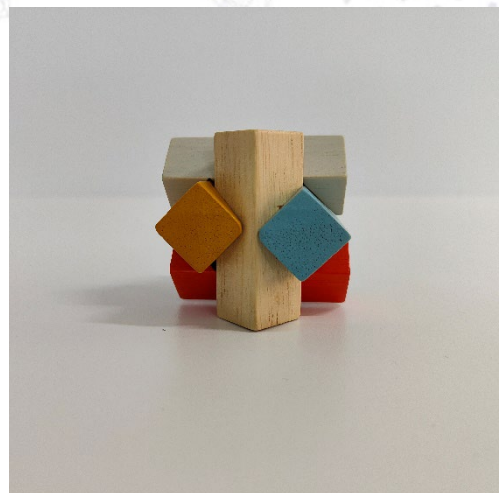
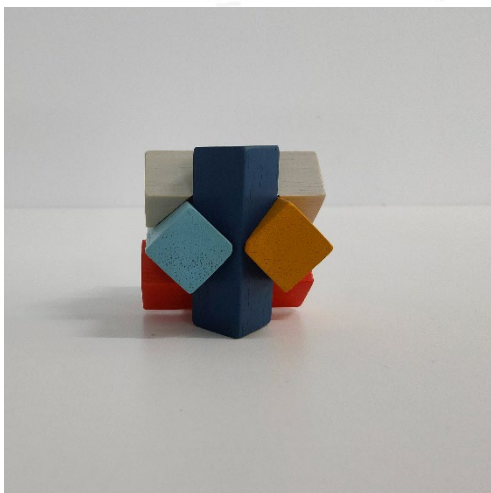
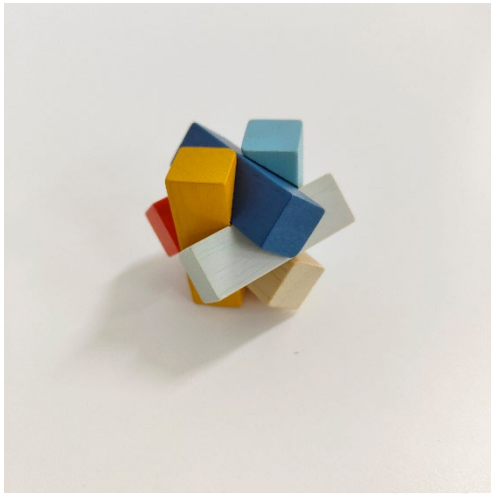
SAMPLE PHOTO



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REMARK:

As per customer request, results for chemical tests listed below were referenced from the corresponding reports, issued no more than 12 months prior to this report.

Item Description: **4652 RECTANGULAR PUZZLE**

Components

EN 71-3:2019+A1:2021 Migration of Certain Elements

SOLID WOOD
LACQUER COATING ON WOOD
LIGHT GRAY COATING ON WOOD
DARK YELLOW COATING ON WOOD
LIGHT BLUE COATING ON WOOD
DARK BLUE COATING ON WOOD
RED COATING ON WOOD

Report Number

010222050105
010222050135
010222070004
010222110059
010221120083
010222110059
010222110061

Date of Issue

06 Jun 2022
06 Jun 2022
13 Jul 2022
21 Nov 2022
04 Jan 2022
21 Nov 2022
21 Nov 2022



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TEST RESULT(S):

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

Test Method : Reference to EN 71-1:2014+A1:2018.

Clause	Requirement	Result
4.1	Material cleanliness	M
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	M
4.8	Points and metallic wires	M
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	Cord of toy kites and other flying toys	NA
4.14	Toys which a child can enter	NA
4.15	Toys propelled by child	NA
4.16	Heavy immobile toys	NA
4.17	Projectiles	NA
4.18	Aquatic toys and inflatable toys	NA
4.19	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
5	Toys intended for children under 36 months	NA
6	Packaging	M
7	Warning, instructions for use	M

Note:

M = Meet

NM = Not Meet

NA = Not Applicable

R = Refer to Comment Section

NR = Not Requested

NT = Not Tested

NP = Not Present

EN 71-2:2020 - Flammability

Test Method : Reference to EN 71-2:2020.

Test Item(s)	Item / Component Description(s)
1	4652 RECTANGULAR PUZZLE

Subclause	Requirement	Result
4.1	General requirement	PASS
	Celluloid (cellulose nitrate)	NP

Note:

M = Meet

NM = Not Meet

NA = Not Applicable

R = Refer to Comment Section

NR = Not Requested

NT = Not Tested

NP = Not Present

DNI = Did Not Ignite



Report No. 010222110040

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TEST RESULT(S): (Continued)

EN 71-3:2019+A1:2021 – Migration of Certain Elements

Test Method : Reference to BS EN 71-3:2019+A1:2021 Analysis by ICP-MS.

Test Item(s)	Item / Component Description(s)
1	SOLID WOOD
2	LACQUER COATING ON WOOD
3	LIGHT GRAY COATING ON WOOD
4	DARK YELLOW COATING ON WOOD
5	LIGHT BLUE COATING ON WOOD
6	DARK BLUE COATING ON WOOD
7	RED COATING ON WOOD

See Soluble Element and its corresponding Maximum Allowable Limit in Result Table	Category I	Pliable modelling materials or other solid materials intended to leave a trace appearing in the toy
	Category II	Liquid paints/inks and other similar materials appearing as such in the toy (e.g. bubble solution), and glue sticks
	Category III	Coatings, polymeric materials (e.g. plastics), paper, textiles, glass, ceramic, metallic, wood and other solid materials

-	Unit	Permissible Limit	Result			
Test Item(s)	-	-	1	2	3	4
Category Type	-	III	III	III	III	III
Aluminium (Al)	mg/kg	28130	ND	ND	394	59
Antimony (Sb)	mg/kg	560	ND	ND	ND	ND
Arsenic (As)	mg/kg	47	ND	ND	ND	ND
Barium (Ba)	mg/kg	18750	ND	ND	ND	ND
Boron (B)	mg/kg	15000	ND	ND	ND	ND
Cadmium (Cd)	mg/kg	17	ND	ND	ND	ND
Chromium III (Cr III)	mg/kg	460	ND	0.4	0.8	0.51
Chromium VI (Cr VI)	mg/kg	0.053	ND	ND	ND	ND
Cobalt (Co)	mg/kg	130	ND	ND	ND	ND
Copper (Cu)	mg/kg	7700	ND	ND	ND	ND
Lead (Pb)	mg/kg	23	ND	1	ND	ND
Manganese (Mn)	mg/kg	15000	21	ND	ND	ND
Mercury (Hg)	mg/kg	94	ND	ND	ND	ND
Nickel (Ni)	mg/kg	930	ND	ND	ND	ND
Selenium (Se)	mg/kg	460	ND	ND	ND	ND
Strontium (Sr)	mg/kg	56000	ND	ND	ND	ND
Tin (Sn)	mg/kg	180000	ND	ND	ND	ND
Organic tin	mg/kg	12	ND	ND	ND	ND
Zinc (Zn)	mg/kg	46000	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS



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TEST RESULT(S): (Continued)

-	Unit	Permissible Limit	Result		
Test Item(s)	-	-	5	6	7
Category Type	-	III	III	III	III
Aluminium (Al)	mg/kg	28130	424	390	16
Antimony (Sb)	mg/kg	560	ND	ND	ND
Arsenic (As)	mg/kg	47	ND	ND	ND
Barium (Ba)	mg/kg	18750	ND	ND	ND
Boron (B)	mg/kg	15000	ND	ND	ND
Cadmium (Cd)	mg/kg	17	ND	ND	ND
Chromium III (Cr III)	mg/kg	460	0.18	0.74	0.76
Chromium VI (Cr VI)	mg/kg	0.053	ND	ND	ND
Cobalt (Co)	mg/kg	130	ND	ND	ND
Copper (Cu)	mg/kg	7700	ND	ND	ND
Lead (Pb)	mg/kg	23	ND	ND	ND
Manganese (Mn)	mg/kg	15000	14	ND	ND
Mercury (Hg)	mg/kg	94	ND	ND	ND
Nickel (Ni)	mg/kg	930	ND	ND	ND
Selenium (Se)	mg/kg	460	ND	ND	ND
Strontium (Sr)	mg/kg	56000	ND	ND	ND
Tin (Sn)	mg/kg	180000	ND	ND	ND
Organic tin	mg/kg	12	ND	ND	ND
Zinc (Zn)	mg/kg	46000	ND	10	24
Conclusion	-	-	PASS	PASS	PASS

Note:

- mg/kg = milligram per kilogram
- ND = Not Detected
- Reporting limit for Cr (III), Cr (VI) = 0.02 mg/kg, and for Tin and Organic Tin = 0.9 mg/kg
- Reporting limit for Pb = 1.0 mg/kg, for As, Cd = 0.5 mg/kg
- Reporting limit for Al, Sb, Ba B, Co, Hg, Cu, Mn, Ni, Se, Sr, Zn = 10.0 mg/kg
- Confirmation test of chromium (III) is not required in case of chromium does not exceed their requirements as specified in EN 71-3:2019+A1:2021.

END OF REPORT

This report sets forth our findings solely with respect to the test samples identified herein. The results in this report are not representative of the quality or characteristics of the lot/batch from which a test sample was taken or any similar or identical product unless specifically and expressly noted. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client, GIC Testing & Inspection Services Pte. Ltd. therefore assumes no responsibility for the accuracy of information on the brand name, model/ style number, consignment or any information supplied. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.