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Product Technology Service

Report No.: TS2014090108-2

Test Report

Testing institute : Product Technology Service (Ningbo) Co., Ltd.
6&7F, 59#, Huayu Road,
Yinzhou District, Ningbo 315192 P.R. China

Applicant : DILEMMA GAMES LTD
B5 Zhu,Jaingyin,Business industrial area.Jiangsu,214415,P.R. CHINA.

Origin : Thailand

Product name : See page 2

Model/type : /

Sample Description : /

Material : /

Sample receive date : Sep.02,2014
Completes date : Sep.05,2014

Testing location : Product Technology Service (Ningbo) Co., Ltd.

Test specification(s) : 1.EN71-Part1: 2011+A3:2014 Mechanical and Physical Properties
Excluding Labeling Requirement of Clause 7.1&7.2
2.EN71-Part2: 2011+A1:2014 Flammability
3.EN71 - Part 3:2013 -- Migration of certain elements

Conclusion : Pass

Danyan Wang
Originator:
Danyan Wang

Jifei Xu
Report Verifier:
Jifei Xu



Ningbo, Sep.09,2014

The test results exclusively refer to the samples examined. This report shall not be reproduced except in full without written approval and does not authorize the use of Product Technology Service (Ningbo) Co., Ltd. label. The report is invalid without signature and seal of Product Technology Service (Ningbo) Co., Ltd.

Product name:

No	Code	Name	Part No.	Part Name
1	IQ142/IQ113/IQ123A	The Great Star/Star Puzzle(L)/Falling Star	1-1	Wood
2	IQ103/IQ101/IQ125	X Game/C.C.O. Puzzle/Burr Puzzle		
3	IQ105/IQ108/IQ.182	Soma Cube 3D - (M)/Nails Cube(L)/Century cube		
4	IQ510A/IQ114/IQ806/IQ802	Pagoda (6 pcs.) L/4 T Puzzle/Find the M Puzzie/ Find the T Puzzle		
5	IQ863/IQ875/IQ804	The Love Test/The Locked Ring/K Puzzle	5-1	Red rope
			5-2	Orange rope
6	IQ855/IQ877/IQ885	The 3 Pillars/Double Locked Rings/Gordian Lock	6-1	Dark red rope
			6-2	White rope
			6-3	Light color wood(Wooden bead)
7	IQ805/IQ801/IQ803	H Puzzle/F Puzzle/T Time-100 puzzles		
8	IQ873	String Puzzle with ring		

1. EN71 - Part1: Mechanical and Physical Properties

Test specification	:	EN71-Part1: 2011+A3:2014 Mechanical and Physical Properties Excluding Labeling Requirement of Clause 7.1&7.2
Test item(s)	:	See below
Requirement	:	See below
Labeled age grading	:	Not stated
Applicant's specified age group for testing	:	3+ years
Age grading for test	:	Over 3 years

Test Results

Clause	Assessment
4. General requirements	
4.1 Material	<u>Pass</u>
4.7 Edges	<u>Pass</u>
4.8 Points and wires	<u>Pass</u>
7. Warnings, markings and instructions for use	
Tracking information [CE mark, importer / manufacturer mark (name, address), product identification]	<u>See Remark</u>

(REMARK: It is drawn to your attention that the product identification number, name and address of manufacturer and importer in EEC country together with CE-marking should appear as specified in Directive-2009/48/EC-Safety of toys)

7.1 General	<u>See Remark 1</u>
7.2 Toys not intended for children under 36 months	<u>See Remark 1</u>

Remark:

1: The applicant certified that they would print the warning statement and symbol as specified in clause 7.1&7.2 of EN71 part1 on the product or its packaging.

N.B.: Only applicable clauses were shown.

2. EN71 - Part2: Flammability

Test specification : EN71-Part2: 2011+A1:2014 Flammability

Test item : See below

Requirement : See below

Test Results

Clause

4.1 General

---- The following materials shall not be used in the manufacture of toys

Cellulose nitrate and materials with the same behaviour in fire

Materials with a piled surface which produce surface flash on the approach of a flame

---- Toys shall not contain flammable gases, flammable liquids and flammable solids

Assessment

Pass

Remark :

N.B.: Only applicable clauses were shown.

Main test instruments used for this method:

Instrument	Manufactory	Model / Type
Flammability tester-EN71	Tonny	TNC14

3. EN71 - Part 3:2013 -- Migration of certain elements

Test method : EN71 - Part 3:2013 -- Migration of certain elements

Test item : Migration of 19 Elements – with reference to 2009/48/EC and its amendment 2012/7/EU

Requirement : See below

Test Product No				No. 1-1	No. 5-1	No. 5-2
Parameter	Unit	RL	Regulatory Requirement ^{#3}	Result	Result	Result
Aluminium (Al)	mg/kg	50	70000	ND	ND	ND
Barium (Ba)	mg/kg	50	18750	ND	ND	ND
Boron (B)	mg/kg	50	15000	ND	ND	ND
Manganese (Mn)	mg/kg	50	15000	ND	ND	ND
Strontium (Sr)	mg/kg	50	56000	ND	ND	ND
Tin (Sn)	mg/kg	50	180000	ND	ND	ND
Zinc (Zn)	mg/kg	50	46000	ND	ND	ND
Copper (Cu)	mg/kg	50	7700	ND	ND	ND
Antimony (Sb)	mg/kg	1	560	ND	ND	ND
Arsenic (As)	mg/kg	0.5	47	ND	ND	ND
Cadmium (Cd)	mg/kg	0.3	17	ND	ND	ND
Cobalt (Co)	mg/kg	0.5	130	ND	ND	ND
Lead (Pb)	mg/kg	0.5	160	ND	ND	ND
Mercury (Hg)	mg/kg	0.5	94	ND	ND	ND
Nickel (Ni)	mg/kg	10	930	ND	ND	ND
Selenium (Se)	mg/kg	5	460	ND	ND	ND
Chromium III (CrIII)*	mg/kg	5	460	ND	ND	ND
Chromium VI (CrVI)	mg/kg	0.02	0.2	ND	ND	ND
Organic tin	mg/kg	5	12	ND	ND	ND
Conclusion				PASS	PASS	PASS

Test Product No				No.6-1	No.6-2	No.6-3
Parameter	Unit	RL	Regulatory Requirement ^{#3}	Result	Result	Result
Aluminium (Al)	mg/kg	50	70000	ND	ND	ND
Barium (Ba)	mg/kg	50	18750	ND	ND	ND
Boron (B)	mg/kg	50	15000	ND	ND	353
Manganese (Mn)	mg/kg	50	15000	ND	ND	ND
Strontium (Sr)	mg/kg	50	56000	ND	ND	ND
Tin (Sn)	mg/kg	50	180000	ND	ND	ND
Zinc (Zn)	mg/kg	50	46000	ND	ND	ND
Copper (Cu)	mg/kg	50	7700	ND	ND	ND
Antimony (Sb)	mg/kg	1	560	ND	ND	ND
Arsenic (As)	mg/kg	0.5	47	ND	ND	ND
Cadmium (Cd)	mg/kg	0.3	17	ND	ND	ND
Cobalt (Co)	mg/kg	0.5	130	ND	ND	ND
Lead (Pb)	mg/kg	0.5	160	ND	ND	ND
Mercury (Hg)	mg/kg	0.5	94	ND	ND	ND
Nickel (Ni)	mg/kg	10	930	ND	ND	ND
Selenium (Se)	mg/kg	5	460	ND	ND	ND
Chromium III (CrIII)*	mg/kg	5	460	ND	ND	ND
Chromium VI (CrVI)	mg/kg	0.02	0.2	ND	ND	ND
Organic tin	mg/kg	5	12	ND	ND	ND
Conclusion				PASS	PASS	PASS

Remark:

ND= Not Detected (< RL), RL = Reporting Limit
mg/kg denotes milligram per kilogram

*: Chromium III (CrIII) content equal to the content of total chromium minus hexavalent chromium content

#3: Regulatory Requirement for scraped-off materials

Main test instruments used for this method:

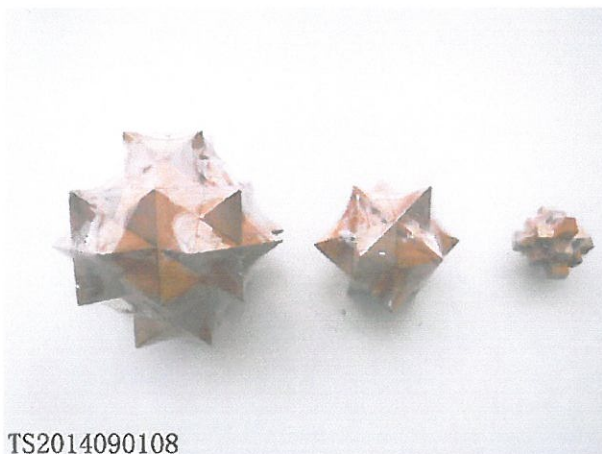
Parameter	Instrument	Manufactory	Model / Type
Al, Ba, B, Cu, Mn, Ni, Se, CrIII, Sr, Zn Sb, As, Cd, Co, Pb, Hg, Sn	ICP-MS	Agilent	7700
CrVI	LC- ICP-MS	Agilent	1260-7700
Organic tin	GC-MS	Agilent	GC (6890)-MS (5975)

Sample photo(s), see annex 1

---END---

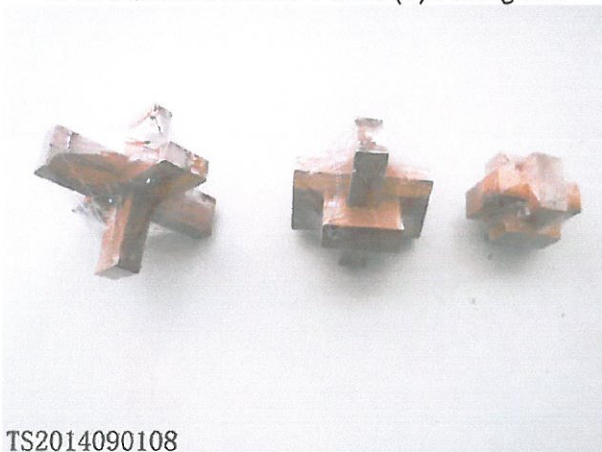
ANNEX 1

Sample photos, Consists of 3 pages



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1: The Great Star/Star Puzzle(L)/Falling Star



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2: X Game/C.C.O. Puzzle/Burr Puzzle



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3: Soma Cube 3D - (M)/Nails Cube(L)/Century cube

Remark: According to client's requirement, following photos were supplied by client.



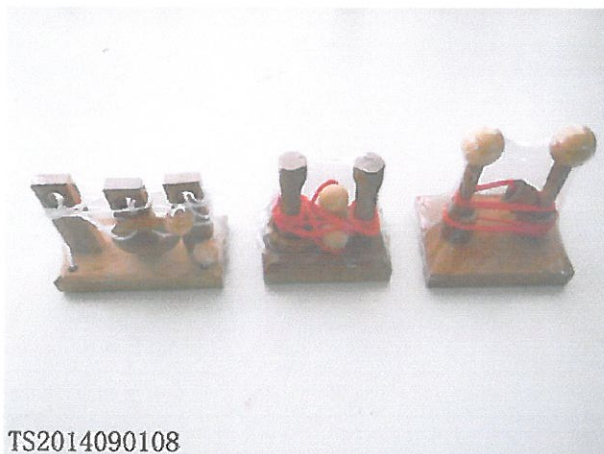
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4: Pagoda (6 pcs.) L/4 T Puzzle/Find the M Puzzle/ Find the T Puzzle



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5: The Love Test/The Locked Ring/K Puzzle



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6: The 3 Pillars/Double Locked Rings/Gordian Lock



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7: H Puzzle/F Puzzle/T Time-100 puzzles



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8: String Puzzle with ring