

Products

Report No.: 0154163610a 001

Page 1 of 25

Client: NANTONG JIAWEI PLASTIC CO., LTD

No. 2 WANGYUAN RD, XINGYUAN AVE., RUGAO CITY, JIANGSU PROV. CHINA

Manufacturer's name: NANTONG JIAWEI PLASTIC CO., LTD

Test item(s): Toy

**Identification /
Model No(s):** EVA mat JW-SM-002

Sample Receiving Date: 2016-04-29

Testing Period: 2016-04-29 - 2016-05-06

Test specification:

Please refer to "Test Result Summary List" on page 2 for details

Other information:

Country of Origin: China

Sales Destination: U.S.A, Germany, Canada and so on

Packaging provided: Yes

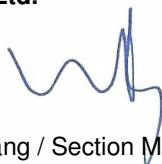
The provided age grade of the item: For all ages.

The appropriate age grade of the item: For all ages.

The item was tested for all ages.

*As per client's requirement

**For and on behalf of
TÜV Rheinland (Shanghai) Co., Ltd.**



2016-06-01

Wice Wang / Section Manager

Date

Name/Position

Test result is drawn according to the kind and extent of tests performed.

This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

Test Report No.: 0154163610a 001

Page 2 of 25

Test Result Summary :

Test Specification:	Test result:
1. CPSC 16 CFR 1500.48, 1500.49, 1501, 1500.19 Mechanical and Physical Test	PASS
2. CPSC 16 CFR 1500.44 Flammability Test of Rigid and Pliable Solids	PASS
3. Banned azo dyes*	PASS
4. Organotin compounds content	PASS
5. Total Cadmium Content - REACH regulation (EC) No. 1907/2006 Annex XVII Item 23 and its amendments (EC) No. 552/2009, (EU) No. 494/2011 and (EU) No. 835/2012	PASS
6. BBP, DBP, DEHP content and DNOP, DINP, DIDP content requirements of REACH regulation (EC) No. 1907/2006 and amendment no. 552/2009 Annex XVII Item 51 & 52 respectively (formerly known as 2005/84/EC)	PASS
7. Formaldehyde content	PASS
8. Polycyclic aromatic hydrocarbons (PAHs) - according to GS Specification, AfPS GS 2014:01 PAK	PASS
9. Total Lead Content*	PASS
10. Total Lead Content - State of Illinois Public Act 097-0612 (SB 1943)*	PASS
11. CPSIA Sect 108, and Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) : Phthalates	PASS
12. Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): Cadmium Content	PASS
13. Washington Statutes 70.240.020 - Prohibition on the manufacturing and sale of children's products containing lead, cadmium, or phthalates*	PASS
14. Toxic in Packaging Clearinghouse (TPCH) - Model Toxics in Packaging Legislation as revised by Dec 2008, "formerly governed organization - CONEG"	PASS
15. Packaging Waste Heavy Metal Test - 94/62/EC	PASS

Test Report No.: 0154163610a 001

Page 3 of 25

Material list

Material No.	Material	Color	Location
M001	Foam	Ocean green	Eva mat
M002	Plastic	Transparent	Package

Test Report No.: 0154163610a 001

Page 4 of 25

1. CPSC 16 CFR 1500.48, 1500.49, 1501, 1500.19 Mechanical and Physical Test

Test method: CPSC 16CFR 1500.48, 1500.49, 1500.51, 1500.52, 1500.53

Result:

Test No.	Material No.	Part	Description	Result
T001	M001	16 CFR 1500.48	Requirement for sharp points (0- 96 months)	PASS
		16 CFR 1500.49	Requirement for sharp edges – metal or glass (0- 96 months)	PASS
		16 CFR 1501	Requirement for small parts (0-36 months)	PASS
		16 CFR 1500.19	Requirement for misbranded toys and other articles intended for use by children	N/A

General labeling

Test No.	Material No.	Description	Result
T001	M001	Company name and address	Absent
		Country of origin	Absent

Test Report No.: 0154163610a 001

Page 5 of 25

2. CPSC 16 CFR 1500.44 Flammability Test of Rigid and Pliable Solids**Result:**

Test No.	Material No.	Burn rate (inch / second)	Result	Limit
T001	M001	0.019	PASS	0.1 inch/s

Note: DNI= Did not Ignite

Test Report No.: 0154163610a 001

Page 6 of 25

3.Banned azo dyes (1907/2006/EC) (modified)

Test Method: EN 14362-1:2012

Test result:

Test No.	Material No.	Test Parameter	Method	Unit	RL	Customer's Requirement	Result
T001	M001	Azo dyes	EN 14362-1	mg/kg	5	30	n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram

Test Report No.: 0154163610a 001

Page 7 of 25

Remark:

- * The CAS-number 97-56-3 (A5) and 99-55-8 (A6) are further reduced to CAS-number 95-53-4 (A18) and 95-80-7 (A19).
- ** Azo colorants that are able to form 4-aminoazobenzene (A22) CAS-number 60-09-03, generate under the condition of this method Aniline (A25) CAS-number 62-53-3 and 4-aminoaniline (A26) CAS-number 106-50-3.
- *** Azo colorants that are able to form 4-aminoazobenzene (A22), is confirmed by EN 14362-3:2012 / ISO 17234-2:2011.
- **** Azo colorants are detected & quantified by GC/MS and confirmed by LC/MS.
- ^ Additional azo colorants were tested according to customer's requirement.

ID	Azo colorant	CAS No.	ID	Azo colorant	CAS No.
A1	biphenyl-4-ylamine / 4-aminobiphenyl / xenylamine	92-67-1	A14	p-cresidine	120-71-8
A2	benzidine	92-87-5	A15	4,4'-methylene-bis-(2-chloro-aniline) / 2,2'-dichloro-4,4'-methylene-dianiline	101-14-4
A3	4-chloro-o-toluidine	95-69-2	A16	4,4'-oxydianiline	101-80-4
A4	2-naphthylamine	91-59-8	A17	4,4'-thiodianiline	139-65-1
A5*	o-aminoazotoluene / 4-amino-2',3'-dimethylazobenzene / 4-o-tolylazo-o-toluidine	97-56-3	A18	o-toluidine / 2-aminotoluene	95-53-4
A6*	5-nitro-o-toluidine	99-55-8	A19	4-methyl-m-phenylenediamine	95-80-7
A7	4-chloroaniline	106-47-8	A20	2,4,5-trimethylaniline	137-17-7
A8	4-methoxy-m-phenylenediamine	615-05-4	A21	o-anisidine / 2-methoxyaniline	90-04-0
A9	4,4'-methylenedianiline / 4,4'-diaminodiphenylmethane	101-77-9	A22**	4-aminoazobenzene	60-09-3
A10	3,3'-dichlorobenzidine / 3,3'-dichlorobiphenyl-4,4'-ylenediamine	91-94-1	A23^	2,4-xylidine	95-68-1
A11	3,3'-dimethoxybenzidine	119-90-4	A24^	2,6-xylidine	87-62-7
A12	3,3'-dimethylbenzidine / 4,4'-bi-o-toluidine	119-93-7	A25^	Aniline	62-53-3
A13	4,4'-methylenedi-o-toluidine	838-88-0	A26^	4-aminoaniline	106-50-3

Test Report No.: 0154163610a 001

Page 8 of 25

4. Organotin Compounds (MBT, DBT, TBT, TTBT, MOT, DOT, TPT and TcyT)

 Test Method: Organic solvent extraction, GCMS
 Ref. to ISO 17353:2004

Test Result:

				Test No.	T001
				Material No.	M001
Test Parameter	Unit	RL	Regulatory Requirement	Result	
MBT (Monobutyltin)	mg/kg	0.005	0.1	n.d.	
DBT (Dibutyltin)	mg/kg	0.005	0.1	n.d.	
TBT (Tributyltin)	mg/kg	0.005	0.1	n.d.	
TTBT (Tetrabutyltin)	mg/kg	0.005	0.1	n.d.	
MOT (Monoctyltin)	mg/kg	0.005	0.1	0.014	
DOT (Dioctyltin)	mg/kg	0.005	0.1	n.d.	
TPT (Triphenyltin)	mg/kg	0.005	0.1	n.d.	
TcyT (Tricyclohexyltin)	mg/kg	0.005	0.1	n.d.	

Abbreviation: n.d. = not detected (< Reporting Limit)
 RL = Reporting Limit
 mg/kg = milligram per kilogram

Test Report No.: 0154163610a 001

Page 9 of 25

Remark:

Type of organostannic compounds	Maximum Permissible Limit	Implementation date
Tri-substituted organostannic compounds, e.g. tributyltin (TBT) compounds and triphenyltin (TPT) compounds	0.1 % by weight of tin	1 July 2010
Dibutyltin (DBT) compounds in mixtures and articles for supply to the general public	0.1 % by weight of tin	1 January 2012 The below products will not be applicable until 1 January 2015: - one-component and two-component room temperature vulcanisation sealants (RTV-1 and RTV-2 sealants) and adhesives, - paints and coatings containing DBT compounds as catalysts when applied on articles, - soft polyvinyl chloride (PVC) profiles whether by themselves or coextruded with hard PVC, - fabrics coated with PVC containing DBT compounds as stabilisers when intended for outdoor applications, - outdoor rainwater pipes, gutters and fittings, as well as covering material for roofing and façades
Diocetyl tin (DOT) compounds - textile articles intended to come into contact with the skin, - gloves, - footwear or part of footwear intended to come into contact with the skin, - wall and floor coverings - childcare articles, - female hygiene products, - nappies, - two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	0.1 % by weight of tin	1 January 2012

Test Report No.: 0154163610a 001

Page 10 of 25

5.Total Cadmium Content

Test Method: For plastic: EN 1122:2001 (method B)
For metal and other material: Acid digestion, analyzed by AAS/ ICP-OES

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Test Result
T001	M001	Trial 1	mg/kg	10	100	n.d.
		Trial 2	mg/kg	10	100	n.d.
		Average	mg/kg	10	100	n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram

Test Report No.: 0154163610a 001

Page 11 of 25

Remark:

*Regulations on Cadmium

Maximum Permissible Limit						
EU	Legislation	Plastic materials	Paint (wet state)	Paint on the painted articles	Paint (high zinc content)	Metal parts of jewellery and imitation jewellery articles and hair accessories
EC	REACH regulation (EC) No. 1907/2006 Annex XVII Item 23 and its amendments (EC) No. 552/2009, (EU) No. 494/2011 and (EU) No. 835/2012	100mg/kg	N.D.	1000mg/kg	1000mg/kg	100mg/kg

Maximum Permissible Limit		
Country	Legislation	Paint, plastic, plating/ coating of surface treatment
Germany	Germany Chemikalien-Verbotsverordnung - ChemVerbotsV, Anhang Abschnitt 18, Okt 1993	100mg/kg
Switzerland	Switzerland Chemikalien-Risikoreduktions-Verordnung-ChemRRV, 814.81, 18 May 2005	100mg/kg

Test Report No.: 0154163610a 001

Page 12 of 25

6. Phthalates

Test Method: Organic solvent extraction, analyzed by GCMS

Test Result:

					Test No.	T001
					Material No.	M001
Test Parameter	CAS NO	Unit	RL	Regulatory Requirement	Result	
Dibutyl phthalate (DBP)	84-74-2	%	0.005	--	n.d.	
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	--	n.d.	
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	--	n.d.	
Sum (DBP+BBP+DEHP)	-	%	NA	0.1	n.d.	
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	--	n.d.	
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	--	n.d.	
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	--	n.d.	
Sum (DNOP+DIDP+DINP)	-	%	NA	0.1	n.d.	

Abbreviation: n.d. = not detected (< RL)
 RL = Reporting Limit
 NA = Not Applicable
 % = percentage

Remark:

- * Single component with an amount below reporting limit was not considered by the calculation of the sum. In the case of all Phthalates were not detected, the result is stated n.d.
- ** REACH regulation (EC) No. 1907/2006 and amendment no. 552/2009 Annex XVII Item 51 (formerly known as 2005/84/EC) on BBP, DBP and DEHP and Item 52 (formerly known as 2005/84/EC) on DNOP, DIDP and DINP are employed.

Test Report No.: 0154163610a 001

Page 13 of 25

7. Formaldehyde (EN ISO 14184-1)**Test Method:** EN ISO 14184-1:2011**Test Result:**

Test No.	Material No.	Test Parameter	Unit	RL	Customer's Requirement	Result
T001	M001	Formaldehyde content	mg/kg	10	30	n.d.

Abbreviation: n.d. = Not Detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram
g = gram

Test Report No.: 0154163610a 001

Page 14 of 25

8. Polycyclic aromatic hydrocarbons (PAHs)

Test Method: AfPS GS 2014:01 PAK

Test Result:

Test No.				T001
Material No.				M001
Test Parameter	CAS NO	Unit	RL	Result
Acenaphthene	83-32-9	mg/kg	0.2	n.d.
Acenaphthylene	208-96-8	mg/kg	0.2	n.d.
Anthracene	120-12-7	mg/kg	0.2	n.d.
Benzo[a]anthracene	56-55-3	mg/kg	0.2	n.d.
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.2	n.d.
Benzo[b]fluoranthene	205-99-2	mg/kg	0.2	n.d.
Benzo[k]fluoranthene	207-08-9	mg/kg	0.2	n.d.
Benzo[j]fluoranthene	205-82-3	mg/kg	0.2	n.d.
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.2	n.d.
Benzo[e]pyrene	192-97-2	mg/kg	0.2	n.d.
Chrysene	218-01-9	mg/kg	0.2	n.d.
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.2	n.d.
Fluoranthene	206-44-0	mg/kg	0.2	n.d.
Fluorene	86-73-7	mg/kg	0.2	n.d.
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.2	n.d.
Naphthalene	91-20-3	mg/kg	0.2	n.d.
Phenanthrene	85-01-8	mg/kg	0.2	0.2
Pyrene	129-00-0	mg/kg	0.2	n.d.
Sum of Acenaphthylene, Acenaphthene, Anthracene, Fluoranthene, Fluorene, Phenanthrene, Pyrene	-	mg/kg	-	0.2
Sum of 18 PAHs	-	mg/kg	-	0.2
Category*	-	-	-	1

Abbreviation: n.d. = not detected (< Reporting Limit)

RL = Reporting Limit

NA = Not Applicable

mg/kg = milligram per kilogram

Test Report No.: 0154163610a 001

Page 15 of 25

Remark:

- * PAH maximum permissible limits requirement from the GS-Mark Approval published by the German Federal Institute for Occupational Safety and Health (BAuA)

Parameter	Unit	Category 1	Category 2		Category 3	
		Materials intended to be put into the mouth or materials of toy for children with long term intended skin contact (longer than 30 s)	Materials not covered by category 1, with foreseeable long term skin contact (longer than 30 s) or repeated short-term skin contact		Materials not covered by category 1 or 2, with foreseeable short term contact (shorter than 30s)	
		-	Toys according to directive 2009/48/EC	Other products according to ProdSG	Toys according to directive 2009/48/EC	Other products according to ProdSG
Benzo[a]pyrene(BaP)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[e]pyrene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[a]anthracene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[b]fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[j]fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[k]fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Chrysene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Dibenzo[a,h]anthracene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[g,h,i]perylene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Indeno[1,2,3-cd]pyrene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Naphthalene	mg/kg	<1	<2	<2	<10	<10
Sum of Acenaphthylene Acenaphthene Anthracene Fluoranthene Fluorene Phenanthrene Pyrene	mg/kg	<1	<5	<10	<20	<50
Sum of 18 PAHs	mg/kg	<1	<5	<10	<20	<50

Limit: Specific evaluation required according to type of foreseeable use.

- ** Single components with an amount of <0.2 mg/kg were not considered by the calculation of the sum. In the case of all 18 PAHs were not detected, the result is stated n.d.

Test Report No.: 0154163610a 001

Page 16 of 25

9.Total Lead Content

Test Method: CPSC-CH-E1003-09.1 (Microwave method)

Result:

Test No.	Material No.	Test Parameter	Unit	RL	Customer's Requirement	Result
T001	M001	Lead Content	mg/kg	10	90	n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram

Remark:

*1 The requirement is following 16 CFR Part 1303 for

- (1) Paint and other similar surface-coating materials
- (2) Lead-containing paint
- (3) Toys and other articles intended for use by children and
- (4) Furniture article.

Test Report No.: 0154163610a 001

Page 17 of 25

10.Total Lead Content - State of Illinois Public Act 097-0612 (SB 1943)

 Test Method: For substrate: CPSC-CH-E1001-08.3, CPSC-CH-E1002-08.3
 For coating: CPSC-CH-E1003-09.1 (microwave method)

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Customer's Requirement	Result
T001	M001	Lead Content	mg/kg	10	40	n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
 RL = Reporting Limit
 mg/kg = milligram per kilogram

Remark:

* Effective from 1 Jan 2012, children's products importing to Illinois shall fulfill both Public Law 110-314 (CPSIA) and Public Act 097-0612 (SB 1943) requirements

Product Type	Lead in Surface coating		Lead in substrate	
	40-90ppm	>90ppm	40-100ppm	>100ppm
Toys Containing Paint(<12 years)	Warning Required	Prohibited in US	Not Applicable	Not Applicable
Child Care Article (< 6 years)	Warning Required	Prohibited in US	Warning Required	Prohibited in US
Children's Jewelry (< 12 years)	Warning Required	Prohibited in US	Warning Required	Prohibited in US

Test Report No.: 0154163610a 001

Page 18 of 25

11.CPSIA Sect 108, and Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) : Phthalates

Test Method: CPSC-CH-C1001-09.3

Test result

CPSIA Sect. 108	Phthalates	PASS
Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)	Phthalates	PASS

Test method: CPSC-CH-C1001-09.3

Test result:

Parameter	CAS No.	Unit	RL	Test No.	T001
				Material No.	M001
				Regulatory requirement	Result
Dibutyl phthalate (DBP)	84-74-2	%	0.005	0.1	n.d.
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	0.1	n.d.
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	0.1	n.d.
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	0.1	n.d.
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	0.1	n.d.
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	0.1	n.d.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	n.d.
Conclusion - CPSIA Phthalates					Pass
Conclusion - Prop 65 Phthalates					Pass

Abbreviation: n.d. = Not Detected (< RL)
 RL = Reporting Limit
 % = percentage

Test Report No.: 0154163610a 001

Page 19 of 25

Remark: *1 Requirement according to Consumer Product Safety Improvement Act 2008, section 108, is summarized below:

Date of Implementation	Parameter	Unit	Maximum Permissible Limit
180 days after the date of enactment/10 Feb 2009	Any children's toy or childcare article:		
	Dibutyl phthalate (DBP), Benzylbutyl phthalate (BBP) or Diethylhexyl phthalate (DEHP)	%	0.1
	Any children's toy that can be placed in a child's mouth or childcare article:		
	Di-n-octyl phthalate (DNOP), Diisodecyl phthalate (DIDP) or Diisononyl phthalate (DINP)	%	0.1

Test Report No.: 0154163610a 001

Page 20 of 25

12.Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): Cadmium Content

Test Method: Acid digestion, analyzed by ICP-OES

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Customer's Requirement	Test Result	Conclusion
T001	M001	Cadmium Content	mg/kg	10	75	n.d.	Pass

Abbreviation: n.d. = not detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram

Test Report No.: 0154163610a 001

Page 21 of 25

13. Washington Statutes 70.240.020 - Prohibition on the manufacturing and sale of children's products containing lead, cadmium, or phthalates

Lead and Cadmium content

Test method : Acid digestion, analyzed by ICP-OES / AAS

Test result

Test No.	Material No.	Test Parameter	Unit	RL	Customer's Requirement	Test Result
1	M001	Lead	%	0.001	0.009	n.d.
		Cadmium	%	0.001	0.004	n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
 RL = Reporting Limit
 mg/kg = milligram per kilogram
 1 % = 10000 mg/kg

Test Report No.: 0154163610a 001

Page 22 of 25

Phthalate content**Test method** : Organic solvent extraction, GCMS**Test result**

Parameter	CAS No.	Unit	RL	Test No.	T001
				Material No.	N001
				Regulatory requirement	Result
Dibutyl phthalate (DBP)	84-74-2	%	0.005	0.1	n.d.
Benzylbutyl phthalate (BBP)	85-68-7	%	0.005	0.1	n.d.
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.005	0.1	n.d.
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.005	0.1	n.d.
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.005	0.1	n.d.
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.005	0.1	n.d.
Sum (DBP+BBP+DEHP+DNOP+DIDP+DINP)		%	NA	0.1	n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
 RL = Reporting Limit
 mg/kg = milligram per kilogram
 1 % = 10000 mg/kg

Test Report No.: 0154163610a 001

Page 23 of 25

14.Toxic in Packaging Clearinghouse (TPCH)

 Test Method: Acid digestion, analyzed by ICP-OES
 For Cr (VI) - EN 62321:2009

Result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Result
T001	M002	Pb	mg/kg	10	100 (total of Pb, Cd, Cr(VI) and Hg)	n.d.
		Cd	mg/kg	10		n.d.
		Cr [^]	mg/kg	10		n.d.
		Cr (VI)	mg/kg	10		n.d.
		Hg	mg/kg	10		n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
 RL = Reporting Limit
 mg/kg = milligram per kilogram
 Pass = the sum of 4 elements is less than or equal to 100 mg/kg.
 Fail = the sum of 4 elements is over 100 mg/kg.
 Uncertain = the sum of 4 elements fell into the uncertainty range.
 N.A = Not Applicable

Remark:

- *1 According to the US Toxic in Packaging Clearinghouse (TPCH) - Model Toxics in Packaging Legislation, revised as Dec 2008; the maximum permissible limit of the sum of the concentration of Lead, Cadmium, Mercury and Hexavalent Chromium is 100ppm. For recycled materials, the maximum permissible limit for the 4 regulated metals is 200ppm.
- ^ Screening of total chromium is performed. If the result is in the inconclusive region, chromium VI content of plastics will be confirmed by EN 62321:2009, whilst that of metal will be confirmed by spot test.
 A positive result of spot test means the presence of Cr(VI) in the material. A negative result means the absence of Cr(VI) in the material.

Test Report No.: 0154163610a 001

Page 24 of 25

15.Packaging Waste Heavy Metal Test - 94/62/EC

 Test Method: Acid digestion, analyzed by ICP-OES
 For Cr (VI) - EN 62321:2009

Result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Result
T001	M002	Pb	mg/kg	10	100 (total of Pb, Cd, Cr(VI) and Hg)	n.d.
		Cd	mg/kg	10		n.d.
		Cr [^]	mg/kg	10		n.d.
		Cr (VI)	mg/kg	10		n.d.
		Hg	mg/kg	10		n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
 RL = Reporting Limit
 mg/kg = milligram per kilogram
 Pass = the sum of 4 elements is less than or equal to 100 mg/kg.
 Fail = the sum of 4 elements is over 100 mg/kg.
 Uncertain = the sum of 4 elements fell into the uncertainty range.
 N.A = Not Applicable

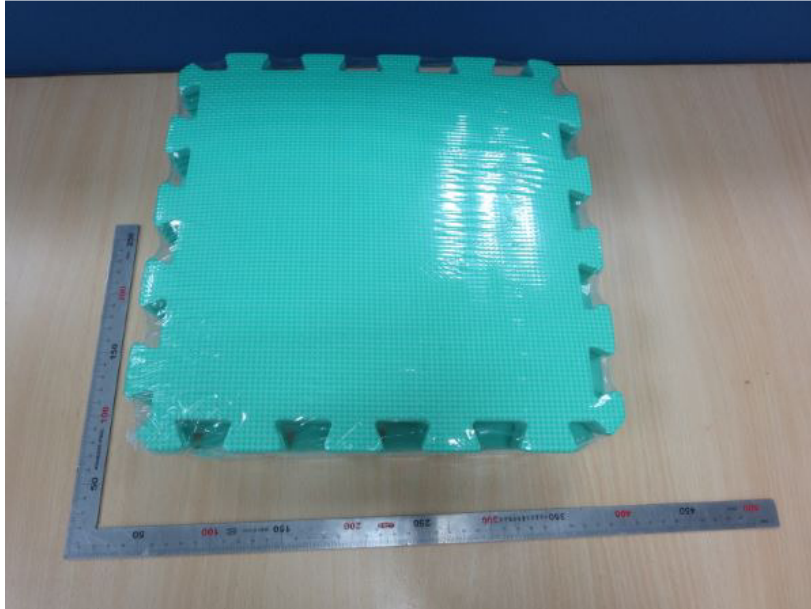
Remark:

- *1 According to "European Parliament and Council Directive 94/62/EC of 20 December 1994"; the maximum permissible limit of the sum of the concentration of Lead, Cadmium, Mercury and Hexavalent Chromium is 100ppm.
- ^ Screening of total chromium is performed. If the result is in the inconclusive region, chromium VI content of plastics will be confirmed by EN 62321:2009, whilst that of metal will be confirmed by spot test.
 A positive result of spot test means the presence of Cr(VI) in the material. A negative result means the absence of Cr(VI) in the material.

Test Report No.: 0154163610a 001

Page 25 of 25

Sample Photo:



- END -