Elegant Home-Tech Co.,Ltd

TEST REPORT

SCOPE OF WORK
SPC CLICK

REPORT NUMBER
220324001SHF-024

TEST DATE(S)
2022-05-16 - 2022-08-02

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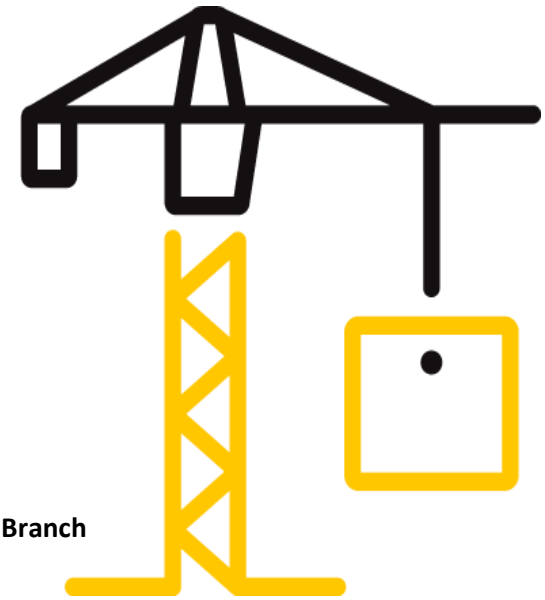

Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch

Test Report

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Test Report

Issue Date: 2022-08-03 Intertek Report No. 220324001SHF-024

Applicant: Elegant Home-Tech Co.,Ltd

Address: Hexin Street Jinfeng Town Zhangjiagang City Jiangsu

Attn: Shibin Ge

Manufacturer: Elegant Home-Tech Co.,Ltd

Address: Hexin Street Jinfeng Town Zhangjiagang City Jiangsu

Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	SPC CLICK	**Brand**	/
Sample Description	Good Condition	**Sample Amount**	72 pieces
		Received Date	2022-05-16

Sample ID	**Model**	**Specification**
S220324001SHF.312~329	/	7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Methods And Standards

Test Standard	ISO 24337:2019, EN 13329:2006+A1:2008, Annex E, Annex F, EN 15468:2016, Annex A, EN 16094:2012, Procedure A, Procedure B, EN 425:2002, EN 424:2001, EN ISO 24343-1:2012/ISO 24343-1:2007, EN 438-2:2016+A1:2018, Section 26, ISO 24334:2019, EN ISO 23999:2021/ISO 23999:2021, DIN 51130:2014, ISO 846:2019, with reference to REACH Annex XVII Item 51, 52, 20, EN 71 part 3:1994 and amendment A1:2000 and AC:2002, EN 717-1:2004
Specification Standard	EN 16511:2014+A1:2019
Test Conclusion	The samples were tested according to the above standards, and the results are shown in the following page.

Note:

1.This report relates specifically to the sample(s) that were drawn and provided by the applicant or their nominated third party. The reported result(s) provide no warranty or verification on the sample(s) representing any specific goods and/or shipment and only relate to the sample(s) as received and tested.

2. EN 71 part 3:1994 and amendment A1:2000 and AC:2002 is not current standard, test was performed as per client's requirement.

Report Authorized

Name: Sally Xie
Title: Approver

Name: Flora Fan
Title: Reviewer

Name: Daniel Zhang
Title: Project Engineer

Test Report

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Test Items, Method and Results:

EN 16511:2014+A1:2019 Loose-laid panels - Semirigid multilayer modular floor covering (MMF) panels with wear resistant top layer

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

General requirements:

Characteristics	Test results	Verdict
Geometrical Characteristics	refer to next page(s)	Pass

,

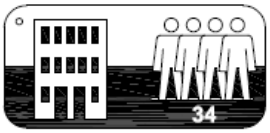
Classification requirements:

Characteristics	Test results	Classification
Wear resistance (method B)	> 7000 cycles	Class 34
Impact resistance (big ball)	1800 mm	Class 34
Micro-scratch resistance	MSR-A2 MSR-B1	Class 34
Castor chair resistance	25000 cycles	Class 34
Effect of furniture leg	No visible damage	Class 34
Residual indentation	0.11 mm	Class 34
Resistance to staining	refer to next page(s)	Class 34
Locking strength	refer to next page(s)	Class 34
Dimensional stability due to variation of temperature	refer to next page(s)	Class 34

Note:

1. Detailed test results see page 7-17

Level of use class:

Class	Symbol	Intensity of use
34		Commercial/Very Heavy

Note:

1. The classification scheme and use intensity symbols are described in EN ISO 10874:2012.

Test Report

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Test Items, Method and Results:

EN 16511 Classification

Class (EN ISO 10874) → **Characteristic ↓**	**21/22**	**23**	**31**	**32**	**33**	**34**	**Reference test method**
Wear resistance IP, method A or	⩾ 200 cycles	⩾ 400 cycles	⩾ 600 cycles	⩾ 1200 cycles	⩾ 2000 cycles	⩾ 4000 cycles	EN 13329:2006+ A1:2008, Annex E
Wear resistance IP, method B	⩾ 500 cycles	⩾ 1000 cycles	⩾ 1500 cycles	⩾ 3000 cycles	⩾ 5000 cycles	⩾ 7000 cycles	EN 15468:2016, Annex A
Impact resistance [mm] (big ball)	⩾ 400 mm	⩾ 600 mm	⩾ 800 mm	⩾ 1200 mm	⩾ 1600 mm	⩾ 1800 mm	EN 13329:2006 + A1:2008, Annex F[f]
Micro-scratch resistance [class]				⩽ MSR-A3[e]	⩽ MSR-A2[e]	⩽ MSR-A2[e]	EN 16094
Castor chair resistance [a, c]			10000 cycles	25000 cycles	25000 cycles	25000 cycles	EN 425:2002
Effect of furniture leg				No visible damage	No visible damage	No visible damage	EN 424 (tested with foot type 0)
Residual indentation	⩽0.3mm	⩽0.3mm	⩽0.3mm	⩽ 0.2mm	⩽ 0.2mm	⩽ 0.15mm	EN ISO 24343-1
Resistance to staining [grade, per group]	Water, coffee, cleaning solution (10 min): grade 4	Water, coffee, cleaning solution (10 min): grade 4	Groups 1 and 2: grade 4 Group 3: grade 3	Groups 1 and 2: grade 5 Group 3: grade 4	Groups 1 and 2: grade 5 Group 3: grade 4	Groups 1 and 2: grade 5 Group 3: grade 4	EN 438-2: Group 1 only 10 min
Swelling * [%]	⩽ 20	⩽ 20	⩽ 20	⩽ 18	⩽ 18	⩽ 12	ISO 24336
Locking strength[b]** [kN/m] Locking strength[b]*				Long side ⩾ 1.0 Short side ⩾ 1.5 Long side ⩾ 1.0 Short side ⩾ 2.0		Long side ⩾ 2.0 Short side ⩾ 3.5 Long side ⩾ 1.0 Short side ⩾ 3.5	ISO 24334
Dimensional variations due to variation of climate *						ΔW_{avg} , Δl_{avg}:⩽0.15% -0.20%⩽C_{avg}⩽0.25%[d] $J_{L,avg}$, $J_{S,avg}$⩽0.15mm $h_{L,avg}$, $h_{S,avg}$ ⩽0.15 mm	ISO 24339
Dimensional stability due to variation of temperature **	⩽ 0.5%	⩽ 0.5%	⩽ 0.25%	⩽ 0.25%	⩽ 0.25%	⩽ 0.25%	EN ISO 23999

a. No disturbance to the surface only gloss changes, no delamination, cracks or disruptions.

b. Only for loose-laid panels.

c. Tested with soft wheels on loose laid panels without underlayment.

d. Take the maximum of Cavg from wet climate (23 °C, 85 % relative humidity) and the minimum of Cavg from dry climate (23 °C, 30 % relative humidity) for the evaluation.

e. Due to detected inhomogeneity of the Scotch Brite fleece SB 7440 (medium fine), the test results of EN 16094, procedure B shall not be used for classification.

f. Only the assessment of cracks on the surface shall be carried out. The deformation is not to be taken into consideration.

* Only for panels with substrates or layers with hygroscopic properties, e.g. HDF or cork.

** Only for products with significant reaction on temperature changing, e.g. thermoplastic vinyl core.

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Test Items, Method and Results:

Test Item: Geometrical characteristics
Test Method: ISO 24337:2019
Conditioning: Condition the test specimens at (23±2)°C and (50±5)% relative humidity to constant mass
Product Name: SPC CLICK
Model: /
Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Item	Test Result	Nominal value	Test Requirement in EN 16511
Thickness	Average value= 5.07 mm $^{\triangle}t_{avg}$ = 0.07 mm t_{max}-t_{min} = 0.09 mm	5.0 mm	$^{\triangle}t_{avg} \leq 0.50$ mm t_{max}-$t_{min} \leq 0.50$mm
Length	Average value= 1220.01 mm Maximum $^{\triangle}l$ = 0.06 mm N/A mm/m	1220 mm	$l \leq 1500$mm: $^{\triangle}l \leq 0.5$ mm $l > 1500$mm: $^{\triangle}l \leq 0.3$ mm/m
Width	Average value= 180.05 mm $^{\triangle}W_{avg}$ = 0.05 mm W_{max}-W_{min} = 0.07 mm	180 mm	$^{\triangle}W_{avg} \leq 0.10$ mm W_{max}-$W_{min} \leq 0.20$ mm
Squareness	q_{max} = 0.04 mm	-	$q_{max} \leq 0.20$ mm
Straightness	S_{max} = 0.06 mm/m	-	$S_{max} \leq 0.30$ mm/m
Flatness	Maximum single values: $f_{w, concave}$= 0.08 % $f_{w, convex}$ = N/A % Maximum single values: $f_{l, concave}$ = 0.02 % $f_{l, convex}$ = N/A %	-	Maximum single values: $f_{w, concave} \leq 0.15$ %, $f_{w, convex} \leq 0.20$ % $f_{l, concave} \leq 0.50$ %, $f_{l, convex} \leq 1.00$ %
Openings	O_{avg} = 0.03 mm O_{max} = 0.05 mm	-	$O_{avg} \leq 0.15$ mm $O_{max} \leq 0.20$ mm
Height difference	h_{avg} = 0.06 mm h_{max} = 0.10 mm	-	$h_{avg} \leq 0.10$ mm $h_{max} \leq 0.15$ mm

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Test Items, Method and Results:

Test Item: Abrasion resistance (method B)

Test Method: EN 15468:2016, Annex A

Conditioning: Condition the test specimens at (23±2)°C and (50±5)% relative humidity for at least 24h

Test Condition:

Rotation frequency: 60 r/min

Abrasive material: Taber S-39 abrasive wheels; S-41 #240 Aluminum Oxide grit

Load on each wheel: 1000 g

Rate of grit flow: 21±3 g/min

Calibration factor: 0.92

Inspect the test piece after every 200 r. When the test nears its end, inspect after every 100 r.

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Parameter	Specimen 1	Specimen 2	Specimen 3
Initial wear point (IP) value, r	＞7000	＞7000	＞7000
Average IP value, r	＞7000		

Note:

1. The initial wear point (IP) is reached when the test specimen shows wear through in 12 sectors of 16 and wear through at least in 1 sector per quadrant.

2. Abbreviation "r" = revolutions/cycles

3. Test result is corrected with the calibration factor.

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Test Items, Method and Results:

Test Item: Resistance to impact by large diameter ball

Test Method: EN 13329:2006+A1:2008, Annex F

Conditioning: Condition the test specimens at (23±2)°C and (50±5)% relative humidity for at least 72h

Test Condition:

Impactor:	Polished steel ball	
Impactor mass:	324	g
Impactor diameter:	42.8	mm
Drop height:	1800	mm

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Specimen	Crack on the surface (Yes/No)	Verdict
1	No	Pass
2	No	
3	No	
4	No	
5	No	

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Test Items, Method and Results:

Test Item: Micro-scratch resistance
Test Method: EN 16094:2012, Procedure A
Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 1 week
Test Condition:

Scrub material:	SB 7447 (very fine)
Holder for scrub material:	Version 2, 6N
Speed factor:	1
Number of rubs:	80
Glossmeter geometry:	85 °

Product Name: SPC CLICK
Model: /
Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Specimen	Gloss change (%)
1	-33.4
2	-30.4
3	-25.7
Average value	-30
Classification	MSR-A2

Classification of mean values of gloss change as per EN 16094 procedure A

Micro-Scratch resistance class according to procedure A	|Change of gloss|
MSR-A1	≤ 10%
MSR-A2	> 10% to ≤ 30%
MSR-A3	> 30% to ≤ 50%
MSR-A4	> 50% to ≤ 70%
MSR-A5	> 70%

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Test Items, Method and Results:

Test Item: Micro-scratch resistance

Test Method: EN 16094:2012, Procedure B

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 1 week

Test Condition:

- Scrub material: SB 7440 (medium fine)
- Holder for scrub material: Version 1, 4N
- Speed factor: 1
- Number of rubs: 160

Reconditioning: Condition the tested specimens at (23 ± 2)°C and (50 ± 5)% for 24 h before visual assessment

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Specimen	Visual assessment	Classification
1	No visible scratches	MSR-B1
2	No visible scratches	MSR-B1
3	No visible scratches	MSR-B1
Average value	No visible scratches	MSR-B1

Classification for visual assessment as per EN 16094 procedure B

Resistance class	Scratch picture	Explanation
MSR-B1		No visible scratches
MSR-B2		Only few scratches
MSR-B3		Many well visible scratches
MSR-B4		A great many well visible raw and fine scratches, Lissajous figure partly visible
MSR-B5		Mix of Lissajous figure and great many scratches, mat abrasion like area in the middle

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Test Items, Method and Results:

Test Item: Castor chair test

Test Method: EN 425:2002

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

Test Condition: At a temperature range of 18°C to 25 °C

Load mass:	90	kg
Test castors:	Type	W
Speed of rotating platform:	20	r/min
Speed of castor assembly:	50	r/min
Total test revolutions:	25000	r
Mounting of the specimen:	Floating installation with click joints	

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Type of damage	Observation (Yes/No)	Verdict
Delamination	No	Pass
Opening of joints	No	
Surface damage	No	
Crazing	No	

Note:

1. Test specimens were not taken apart for assessment after test as per client's requirement.

Test Photo:

Fig 1. After test

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Test Items, Method and Results:

Test Item: Effect of simulated movement of a furniture leg

Test Method: EN 424:2001

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 5 days

Test Condition:

Type of Feet: Type 0

Applied Mass: 32 kg

Test Speed: 0.18 m/s

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Path	Observation		Verdict
	Length direction/Longitudinal direction	Width direction/Transverse direction	
1	No visible damage	No visible damage	Pass
2	No visible damage	No visible damage	
3	No visible damage	No visible damage	

Record the damage caused for each test path if any damage is observed

a) deterioration in the flatness of the surface;

b) damage which partially destroys the surface;

c) cuts of varying depths;

d) penetrating edges;

e) in the case of an open joint floor covering, a joint opening greater or equal to 1 mm;

f) in the case of a treated or welded joint, its failure.

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Test Items, Method and Results:

Test Item: Residual indentation

Test Method: EN ISO 24343-1:2012/ISO 24343-1:2007

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

Test Condition:

Indenter:	Steel cylindrical indenter, with the edge of the flat base slightly rounded	
Indenter diameter:	11.3	mm
Total load applied:	500	N
Indentation time:	150	min
Recovery time:	150	min

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Residual Indentation	Result (mm)
Specimen 1	0.09
Specimen 2	0.12
Specimen 3	0.11
Average value	0.11

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Test Items, Method and Results:

Test Item: Resistance to staining
Test Method: EN 438-2:2016+A1:2018, Section 26
Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h
Product Name: SPC CLICK
Model: /
Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Group	Staining agent	Duration of contact	Result of visual changes
1	Water	10 min	5
1	Acetone	10 min	5
1	Cleaning solution	10 min	5
2	Coffee (approx. 80°C)	16 h	5
3	Sodium hydroxide (25% solution)	10 min	5
3	Hydrogen peroxide (30% solution)	10 min	5
3	Carbon black suspension in paraffin oil	10 min	5

Assessment of results

Numerical rating	Description
5	No change test area indistinguishable from adjacent surrounding area
4	Minor change test area distinguishable from adjacent surrounding area, only when the light source is mirrored on the test surface and is reflected towards the observer's eye, e. g. discoloration, change in gloss and colour
3	Moderate change test area distinguishable from adjacent surrounding area, visible in several viewing directions, e. g. discoloration, change in gloss and colour
2	Significant change test area clearly distinguishable from adjacent surrounding area, visible in all viewing directions, e. g. discoloration, change in gloss and colour, and/or structure of the surface slightly changed, e.g. cracking, blistering
1	Strong change the structure of the surface being distinctly changed and/or discoloration, change in gloss and colour, and / or the surface material being totally or partially delaminated

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Test Items, Method and Results:

Test Item: Locking Strength
Test Method: ISO 24334:2019
Conditioning: Condition the test specimens at (23±2)°C and (50±5)% relative humidity to constant mass
Test Condition: Test speed 0.5 mm/min
Product Name: SPC CLICK
Model: /
Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Long side joint

Parameter	Average Result
Maximum locking strength F_{max} (N)	731
Specific locking strength (kN/m)	3.5
Locking strength at 0.2 mm joint opening $F_{0.2}$ (N)	718
Specific locking strength at 0.2 mm joint opening (kN/m)	3.4

Short side joint

Parameter	Average Result
Maximum locking strength F_{max} (N)	846
Specific locking strength (kN/m)	4.8
Locking strength at 0.2 mm joint opening $F_{0.2}$ (N)	642
Specific locking strength at 0.2 mm joint opening (kN/m)	3.6

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Test Items, Method and Results:

Test Item: Dimensional stability and curling

Test Method: EN ISO 23999:2021/ISO 23999:2021

Conditioning:

Temperature: 23 °C

Humidity: 50 %

Duration: 24 h

Measure the initial length and curling

Test Condition:

Temperature: 80 °C

Duration: 6 h

Reconditioning:

Temperature: 23 °C

Humidity: 50 %

Duration: 24 h

Measure the final length and curling

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Result:

Specimen	Dimensional stability (%)		Curling (mm)
	Length direction/Machine direction	Width direction/Across machine direction	
1	-0.18	0.03	0.18
2	-0.18	0.02	0.14
3	-0.15	0.02	0.03
Average	-0.15	0.00	0.0
Max.	-0.18	0.03	0.18

Note:

1. Dimensional stability = (final length - initial length)×100/initial length

Express the average value to the nearest 0.05%

A negative value indicates shrinkage and a positive value indicates growth.

2. Curling = final curling - initial curling

Express the average value to the nearest 0.5mm

Upward curling is expressed as a positive value and downward curling (sometimes referred to as doming) is expressed as a negative value.

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Test Items, Method and Results:

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test item	Test Method	Test result
Slip resistance (Oil-wet ramp test)	DIN 51130:2014	Angle: 12.7 ° Rating: R 10

DIN 51130 Classification of Slip resistance (Oil-wet ramp test)

Classification	Angle
R9	6°<X≤10°
R10	10°<X≤19°
R11	19°<X≤27°
R12	27°<X≤35°
R13	>35°

Note:

1. Test item was subcontracted on accreditation by CNAS L1401.

Test Report

Issue Date: 2022-08-03 Intertek Report No. 220324001SHF-024

Test Items, Method and Results:

Test Item: Fungi resistance test

Test Method: ISO 846:2019 Plastics-Evaluation of the action of microorganisms method A

Test organisms:

Aspergillus niger	ATCC 6275
Penicillium funiculosum	ATCC 36839
Paecilomyces variotii	ATCC 18502
Gliocladium virens	ATCC 9645
Chaetomium globosum	ATCC 6205

Test condition:

Temperature:	28 °C
Relative humidity:	> 90% R.H.
Duration:	28 days

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Assessment of fungal growth

Intensity of growth	Evaluation
0	No growth apparent under the microscope.
1a	No growth visible to the naked eye, but clearly visible under the microscope covering up to 25% of the test surface.
1b	No growth visible to the naked eye, but clearly visible under the microscope covering up to 50% of the test surface.
1c	No growth visible to the naked eye, but clearly visible under the microscope covering more than 50% of the test surface.
2	Growth visible to the naked eye, covering up to 25% of the test surface.
3	Growth visible to the naked eye, covering up to 50% of the test surface.
4	Considerable growth, covering more than 50% of the test surface.
5	Heavy growth, covering the entire test surface.

Test result:

Intensity of growth	Evaluation
0	No growth apparent under the microscope.

Note: Test item was subcontracted on accreditation by CNAS L0823.

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Issue Date: 2022-08-03 Intertek Report No. 220324001SHF-024

Test Items, Method and Results:

Test Item: Toxic elements analysis

Test Method: With reference to European standard on safety of toys EN 71 part 3:1994 and amendment A1:2000 and AC:2002, acid extraction method was used and toxic elements content were determined By Inductively Coupled Argon Plasma Spectrometry.

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Item	Test Result (mg/kg)	Detection Limit (mg/kg)	Limit(mg/kg)
Soluble Barium (Ba)	ND	5	1000
Soluble Lead (Pb)	ND	5	90
Soluble Cadmium (Cd)	ND	5	75
Soluble Antimony (Sb)	ND	5	60
Soluble Selenium (Se)	ND	5	500
Soluble Chromium (Cr)	ND	5	60
Soluble Mercury (Hg)	ND	5	60
Soluble Arsenic (As)	ND	2.5	25

Remark:

1. mg/kg = milligram per kilogram
2. ND = Not detected(less than the detection limit)
3. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Wuxi
   Address: No. 8, Fubei road, Xishan Economic Development Zone, Wuxi, Jiangsu, China

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Issue Date: 2022-08-03 Intertek Report No. 220324001SHF-024

Test Items, Method and Results：

Test Item: Organotin Content

Test Method: By solvent extraction, followed by Gas Chromatography-Mass Spectrometry (GC-MS) analysis.

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test Item	Test result (%, w/w) of tin	Requirement (%, w/w) of tin
Tri-substituted Organotin*	ND	0.1
Dibutyl tin (DBT)	ND	0.1
Dioctyl tin (DOT)	ND	0.1

Note:

1. The above requirement was quoted according to Annex XVII item 20 of the Reach regulation (EC) No.1907/2006 & amendment (EU) No.276/2010 for organotin content.

2. * = The reported value was calculated by summation of the values of Tri-butylin, Tri-phenyltin, Tri-methyltin, Tri-octyltin, Tri-cyclohexyltin.

3. Detection limit = 0.001% (w/w) of tin

4. ND = Not detected (less than the detection limit)

5. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Wuxi
Address: No. 8, Fubei road, Xishan Economic Development Zone, Wuxi, Jiangsu, China

Test Report

Issue Date: 2022-08-03 Intertek Report No. 220324001SHF-024

Test Items, Method and Results:

Test Item: Phthalate content test

Test Method: With reference to ISO 8124-6:2018 method A or C, by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis.

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

I. Annex XVII Item 51

Tested compound	Result (%, w/w)	Limit (%,w/w) (Max.)
Di-butyl phthalate (DBP)	ND	---
Di(2-ethyl hexyl) phthalate(DEHP)	ND	---
Benzyl butyl phthalate (BBP)	ND	---
Diisobutyl phthalate (DIBP)	ND	---
Sum of Four phthalates	ND	0.1

The above limit was quoted according to Annex XVII Item 51 of the REACH Regulation (EC) No. 1907/2006 & Amendment No. 552/2009 & Amendment Commission Regulation (EU) 2018/2005 for phthalate content in articles.
For toys and childcare articles, DIBP limit was quoted from Commission Regulation (EU) 2018/2005 effective from 7 July 2020.
For non-toys and non-childcare articles, DBP, DEHP, BBP, DIBP limit was quoted from Commission Regulation (EU) 2018/2005 effective from 7 July 2020.

II. Annex XVII Item 52

Tested compound	Result (%, w/w)	Limit (%,w/w) (Max.)
Di-iso-nonyl phthalate (DINP)	ND	---
Di-n-octyl phthalate (DnOP)	ND	---
Di-iso-decyl phthalate (DIDP)	ND	---
Sum of three phthalates	ND	0.1

The above limit was quoted according to Annex XVII Item 52 of the REACH Regulation (EC) No. 1907/2006 & Amendment No. 552/2009 for phthalate content in toys and childcare articles.

Note:

1. Detection limit = 0.01% (w/w)
2. ND = Not detected (less than the detection limit)

3. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Wuxi
Address: No. 8, Fubei road, Xishan Economic Development Zone, Wuxi, Jiangsu, China

Test Report

Issue Date: 2022-08-03 Intertek Report No. 220324001SHF-024

Test Items, Method and Results:

Test Item: Formaldehyde content test

Test Method: With reference to EN 717-1:2004 chamber method, formaldehyde content was detected by UV-VIS spectrophotometer.

Product Name: SPC CLICK

Model: /

Specification: 7.09"X48.03"X4.0X0.3MM + 1.0MM HDPE

Test condition:

Chamber type:	1m^3 stainless steel chamber
Climatic conditions:	(23±0.5)°C, (45±3)% R.H.
Air exchange rate:	1.0 h^{-1}
Loading factor:	1.0 m^2/m^3
Test duration:	247 hours
Test result:	ND

Note:

1. mg/m^3 = milligram per cubic meter
2. Detection limit = 0.02 mg/m^3
3. ND = Not detected (less than the detection limit)
4. Test location: Central Chemical Lab of Intertek Testing Services Shenzhen Ltd. Guangzhou Branch Address: E701. No. 7-2. Caipin Road, Guangzhou Science City, GETDD Guangzhou, China 510663

Test Report

Issue Date: 2022-08-03 Intertek Report No. 220324001SHF-024

Appendix A: Sample Received Photo

Revision:

NO.	Date	Changes
220324001SHF-024	2022-08-03	First issue