中国认可
国际互认
检测
TESTING
CNAS L3379

TEST REPORT

FOREVER TESTING

Report No.: **FTC25030007** **Date:** **Jan.17,2025**

Client: **Shenzhen HSJ Fab Co., Ltd**
Building 3, No.6 Ind Zone, Mashantou Community,
Matian Street, Guangming District, Shenzhen, Zip 518106, China

Sample Receiving Date : Jan.14,2025

Testing Period : From Jan.14,2025 to Jan.17,2025

The following sample (s) and sample information was / were submitted and identified by/on behalf of the client:

Sample Name	HA6 Punching
Model No.	HA6 Punching
Manufacturer	Shenzhen HSJ Fab Co., Ltd
Manufacturer Address	Building 3, No.6 Ind Zone, Mashantou Community, Matian Street, Guangming District, Shenzhen, Zip 518106, China

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SUMMARY OF TEST RESULTS

ITEM	TEST REQUESTED	CONCLUSION
1.	European Council Directive 2011/65/EU on Restrictions on the Use of Certain Hazardous Substances in Electrical and It's Amendments(Including (EU) 2015/863) (RoHS) -Lead, Cadmium, Mercury, Chromium (VI), PBBs,PBDEs,DBP,BBP,DEHP, DIBP Content	Pass

******FOR FURTHER DETAILS,PLEASE REFER TO THE FOLLOWING PAGE(S) ******

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TEST RESULTS

1.EUROPEAN COUNCIL DIRECTIVE 2011/65/EU ON RESTRICTIONS ON THE USE OF CERTAIN HAZARDOUS SUBSTANCES IN ELECTRICAL AND IT'S AMENDMENTS(INCLUDING (EU) 2015/863) (ROHS)

(A)Test Result Summary

Test Method: With Reference to IEC 62321-3-1:2013, Determined By X Ray Fluorescence(XRF).

Item	Test results(mg/kg)				
	Chromium (Cr)	Cadmium (Cd)	Mercury (Hg)	Lead (Pb)	Bromine (Br)
1	*	ND	ND	ND	/
2	ND	ND	ND	ND	ND

Remark: 1. mg/kg = milligram per kilogram

2. RDL= Report Detection Limit

3. ND=Not Detected (lower than RDL)

4. The result(s) of chromium refer(s) to chromium VI (Cr VI) and the result(s) of bromine refer(s) to polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs).

5.* =The result(s) was(were) confirmed by chemical test.

6. / =The sample(s) was(were) metal, the Bromine(Br)content was not required to be tested.

7. Report Detection Limit (RDL) for Cd was 50(mg/kg);for Cr,Hg,Pb were 100(mg/kg);for Br was 200(mg/kg).

(B)

Interpretation of Result(s) [Preliminary Screening Assessment for European Council Directive 2011/65/EU] :			
Element	Metal	Composite material	Non-metal
Lead (Pb)	BL ≤ (700 - 3σ) < X < (1300 + 3σ) ≤ OL	BL ≤ (500 - 3σ) < X < (1500 + 3σ) ≤ OL	BL ≤ (700 - 3σ) < X < (1300 + 3σ) ≤ OL
Cadmium (Cd)	BL ≤ (70 - 3σ) < X < (130 + 3σ) ≤ OL	BL < X < (150 + 3σ) ≤ OL	BL ≤ (70 - 3σ) < X < (130 + 3σ) ≤ OL
Mercury (Hg)	BL ≤ (700 - 3σ) < X < (1300 + 3σ) ≤ OL	BL ≤ (500 - 3σ) < X < (1500 + 3σ) ≤ OL	BL ≤ (700 - 3σ) < X < (1300 + 3σ) ≤ OL
Chromium (Cr)	BL ≤ (700 - 3σ) < X	BL ≤ (500 - 3σ) < X	BL ≤ (700 - 3σ) < X
Bromine (Br)	-	BL ≤ (250 - 3σ) < X	BL ≤ (300 - 3σ) < X
Unit:mg/kg = milligram per kilogram X = Region considers as marginal result 3σ = Repeatability of XRF analyser at action level σ = 2			

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TEST RESULTS:

(C)Chemical test

Chromium (VI) Content

Test Method: With Reference to IEC 62321-7-1:2015, Analysis Was Performed By UV-VIS.

(Unit:μg/cm^2)

Test Items	Result	RDL
	1	
Chromium (VI) Content	Ne	0.1

Remark: μg/cm^2= Micrograms per square centimeter

RDL= Report Detection Limit

Ne:Negative=Absence of Chromium (VI) coating(below 0.1 μg/cm^2)

Phthalates Content

Test Method: With Reference to IEC 62321-8:2017,Analysis Was Preformed By GC-MS.

(Unit:mg/kg)

Test Item	CAS No.	Result	RDL
		2	
Dibutyl phthalate(DBP)	84-74-2	ND	150
Benzyl butyl phthalate(BBP)	85-68-7	ND	150
Bis (2-ethylhexyl) phthalate(DEHP)	117-81-7	ND	150
Di-iso-butyl phthalate(DIBP)	84-69-5	ND	150

Remark: mg/kg=milligram per kilogram

RDL=Report Detection Limit

ND=Not Detected (lower than RDL)

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TEST RESULTS:

(D)RoHS Requirement

Restricted Substances	Limits
Lead	0.1% (1000 mg/kg)
Cadmium	0.01% (100 mg/kg)
Mercury	0.1% (1000 mg/kg)
Chromium (VI)	0.1% (1000 mg/kg)①
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)
Dibutyl phthalate(DBP)	0.1% (1000 mg/kg)
Benzyl butyl phthalate(BBP)	0.1% (1000 mg/kg)
Bis (2-ethylhexyl) phthalate(DEHP)	0.1% (1000 mg/kg)
Di-iso-butyl phthalate(DIBP)	0.1% (1000 mg/kg)

Remark:

1.The Above Limits Were Quoted From 2011/65/EU And It's Amendments For Homogeneous Material.

2.①=The sample(s) was(were) metal, the limit of Chromium (VI):

A:The test results were less than 0.1 μg/cm^2, the sample content of Chromium (VI) was negative, and the sample coating was considered to be free of Chromium (VI);

B:If the test results were between 0.1 μg/cm^2 and 0.13μg/cm^2, it was considered uncertain whether the sample contains Chromium (VI), because the difference of sample coating will affect the test result;

C:The test results were greater than 0.13 μg/cm^2, the sample content of Chromium (VI) was positive, and the sample coating was considered to contain Chromium (VI).

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TEST REPORT

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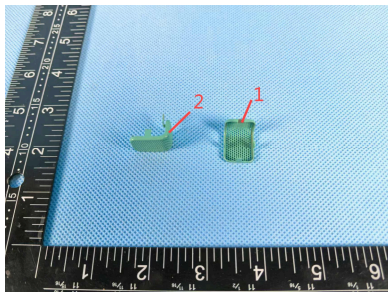
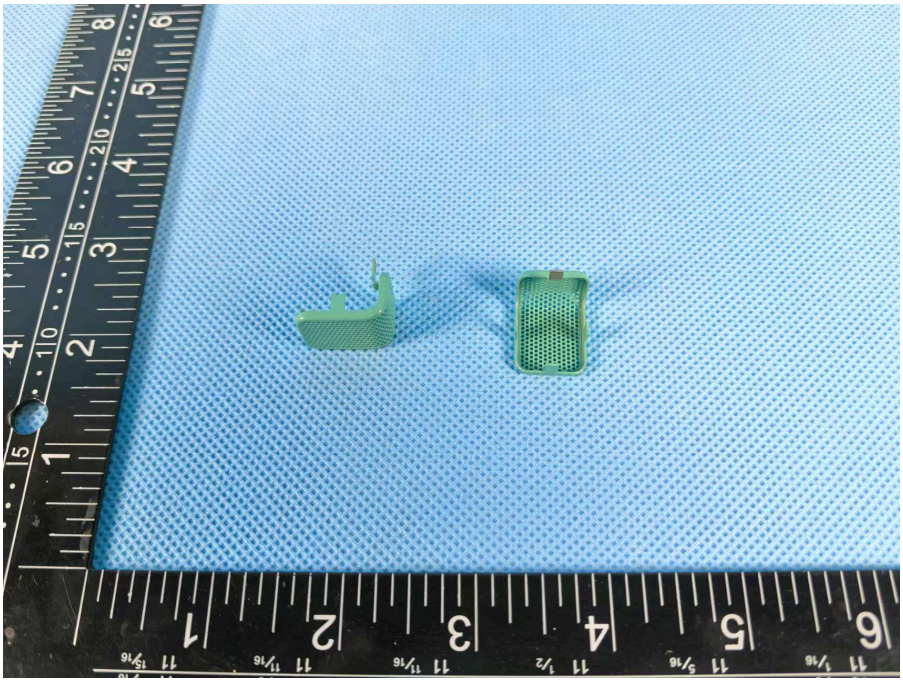
Test Part Description:		photos
1	Silver metal	
2	Blue-green coating	

SAMPLE(S) PHOTO



***End of Test Report ***

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