

Test Report

Number: SHAH01412047

Applicant: SHANGHAI HOTO TECHNOLOGY CO., LTD.
BUILDING 45, NO. 50 MOGANSHAN
ROAD, PUTUO DISTRICT, SHANGHAI, CHINA

Date: 15 Dec, 2021

Attn: WANG QI

Sample Description:

One(1) group of submitted sample said to be :

Item Name : **HOTO Portable Electric Air Compressor**
Item No. : **QWCQB001**
Quantity : **3**
Packaging Provided By Applicant : **Yes**
Goods Exported To : **China ,Europe, North America ,South Korea**
Country Of Origin : **China**

Tests Conducted:

As requested by the applicant, for details refer to attached page(s).

Conclusion:

<u>Tested Samples</u>	<u>Standard</u>	<u>Result</u>
Screened components of Submitted Sample	Restriction of the use of certain hazardous substance in electrical and electronic equipment(RoHS Directive 2011/65/EU and (EU) 2015/863)	Pass

To be continued

Authorized By:
Intertek Testing Services Ltd. Zhejiang



Peter Chen
General Manager



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1. Certain Hazardous Substance in Electrical and Electronic Equipment

Cadmium (Cd), Lead (Pb), Mercury (Hg), Chromium (Cr) and bromine (Br) content were measured with reference to IEC 62321-3-1 Edition 1.0:2013 by XRF spectroscopy and chemical confirmation test for RoHS restricted substances. And Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs) and Phthalates content were determined by Gas Chromatographic-Mass Spectrometric (GC-MS).

(A) Results:

Part No.	Screened Components	Refer Information	Items	XRF Results	Screened Results (phthalates)	Chemical Confirmation Result (mg/kg)	Conclusion on RoHS
1	SHELL (BLACK PLASTIC)	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	P	/	
			BBP	NA	P	/	
			DBP	NA	P	/	
			DIBP	NA	P	/	
2	HANDLE (BLACK NONMETAL)	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	P	/	
			BBP	NA	P	/	
			DBP	NA	P	/	
			DIBP	NA	P	/	

P = Pass (Below the lower screening limits of table (B1 or B2))

X = Inconclusive result (Further chemical test was suggested (see table (B1 or B2).))

F = Fail (Exceeded the upper screening limits of table (B1))

NA = Not applicable

ND = Not detected

µg/cm² = Microgram per square centimeter

NT = Not tested

Negative = The Cr (VI) concentration is less than 0.10 µg/cm². The sample is negative for Cr (VI).



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(B) Screening Limits

(B1) XRF Screening Limits in mg/kg for Regulated Elements in Various Matrices (mg/kg):

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	$P \leq 70 < X < 130 \leq F$	$P \leq 70 < X < 130 \leq F$	$P \leq 70 < X < 150 \leq F$
Pb	$P \leq 700 < X < 1300 \leq F$	$P \leq 700 < X < 1300 \leq F$	$P \leq 500 < X < 1500 \leq F$
Hg	$P \leq 700 < X < 1300 \leq F$	$P \leq 700 < X < 1300 \leq F$	$P \leq 500 < X < 1500 \leq F$
Cr	$P \leq 700 < X$	$P \leq 700 < X$	$P \leq 500 < X$
Br	$P \leq 300 < X$	Not applicable	$P \leq 250 < X$

(B2) Preliminary screening test will be used for phthalates, if the results exceed the warning area in the following table, further chemical methods will be conducted to confirm the exact content by GC/MS. (mg/kg)

Phthalates	Polymer
Bis(2-ethylhexyl)phthalate(DEHP)	$P \leq 600 < X$
Butyl benzyl phthalate(BBP)	$P \leq 600 < X$
Dibutyl phthalate(DBP)	$P \leq 600 < X$
Diisobutyl phthalate(DIBP)	$P \leq 600 < X$

(C) Estimated Detection Limits in mg/kg for Regulated Elements in Various Matrices (mg/kg):

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br	200	Not applicable	200

Disclaimers:

This XRF Screening and Chemical Confirmation Test Report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF Screening and Chemical Confirmation Test Report is sufficient for its/his/her purposes.

The results shown in this XRF Screening and Chemical Confirmation Test Report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis is required to obtain quantitative data.



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(D) Chemical Test Methods:

Testing Item	Testing Method	Reporting Limit
Cadmium (Cd) Content	With reference to IEC 62321-5 Edition 1.0: 2013, by acid digestion and determined by ICP - OES	2 mg/kg
Lead (Pb) Content	With reference to IEC 62321-5 Edition 1.0: 2013, by acid digestion and determined by ICP - OES	2 mg/kg
Mercury (Hg) Content	With reference to IEC 62321-4 Edition 1.1: 2017, by acid digestion and determined by ICP - OES	2 mg/kg
Chromium (VI) (Cr ⁶⁺) Content	With reference to IEC 62321-7-1 Edition 1.0:2015, by boiling water extraction and determined by UV-VIS spectrophotometer	Positive(>0.13 µg/cm ²) / Negative(<0.10 µg/cm ²) / Inconclusive(0.10µg/cm ² --0.13 µg/cm ²)
Chromium (VI)(Cr ⁶⁺) Content	With reference to IEC 62321-7-2 Edition 1.0:2017, by alkaline digestion and determined by UV-VIS Spectrophotometer	10 mg/kg
Polybrominated Biphenyls (PBBs) & Polybrominated Diphenyl Ethers (PBDEs) Content	With reference to IEC 62321-6 Edition 1.0:2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	5 mg/kg
Phthalates (DEHP, BBP, DBP, DIBP) Content	With reference to IEC 62321-8 Edition 1.0:2017,by solvent extraction and determined by GC/MS	100mg/kg

(E) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 mg/kg)
Lead (Pb)	0.1% (1000 mg/kg)
Mercury (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr ⁶⁺)	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)
Phthalates(DEHP, BBP, DBP, DIBP)	0.1% (1000 mg/kg)

The above limits were quoted from 2011/65/EU and (EU) 2015/863 for homogeneous material.

Remark: Test Item is subcontracted to the organization accredited by CNAS with code of CNAS L3439.



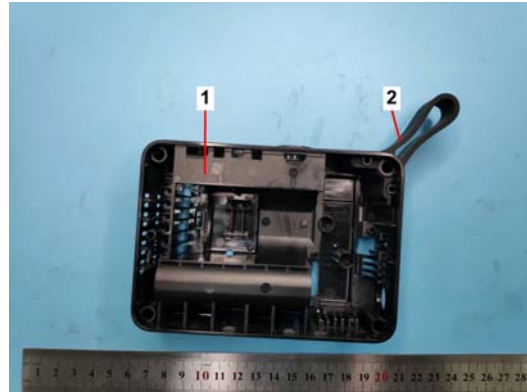
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Picture 1: Submitted sample



Picture 2: Submitted sample

Date sample received: Dec 03,2021

Testing period: Dec 03,2021 to Dec 09,2021

End of report

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