



中国认可
国际互认
检测
TESTING
CNAS L6478



TEST REPORT

Report No. : WTF26F08259697R1C
Job No. : FSW2608312327CJ
Applicant : SUNLU (Guangdong) Technology Co., Ltd
Address : No.162 Tanlong North Road, Tanzhou Town, Zhongshan City,
China
Test Requested : With reference to EU RoHS Directive 2011/65/EU and its
amendment Directive EU 2015/863, to determine the Pb, Cd,
Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP content in
the submitted sample.
Test Conclusion : **Pass**
Date of Receipt Sample : 2026-08-31
Testing Period : 2026-08-31 to 2026-09-05
Date of Issue : 2026-09-10
Test Result : Refer to next page (s)

WALTEK

Prepared By:

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Signed for and on behalf of
Waltek Testing Group (Foshan) Co., Ltd.

Rena. Chen



WTF26F08259697R1C

Rena Chen
Waltek Testing Group (Foshan) Co., Ltd.
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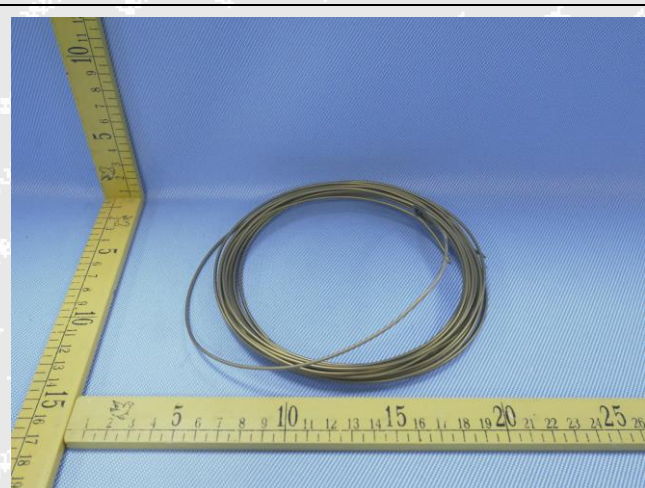
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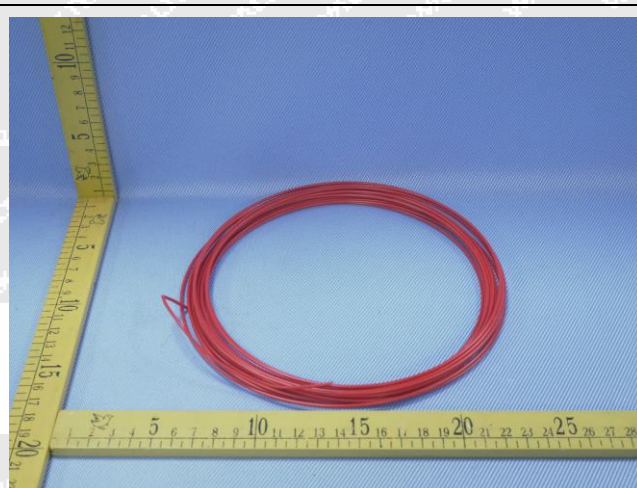
No.	Sample Name	Brand
1	PLA metal	SUNLU
2	PETG2.0	
3	PLA+silk2.0	
4	ABS 2.0	
5	PP2.0	
6	PLA-HT	
7	PA6-CF05	
8	PLA wooden	

The above information was submitted and identified by/on the behalf of the applicant.

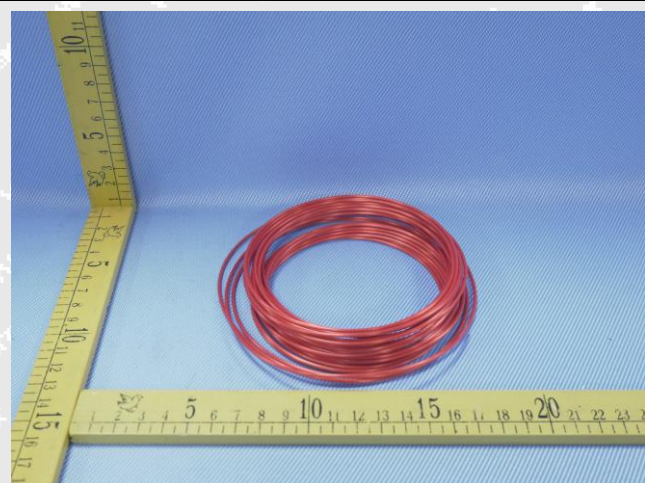
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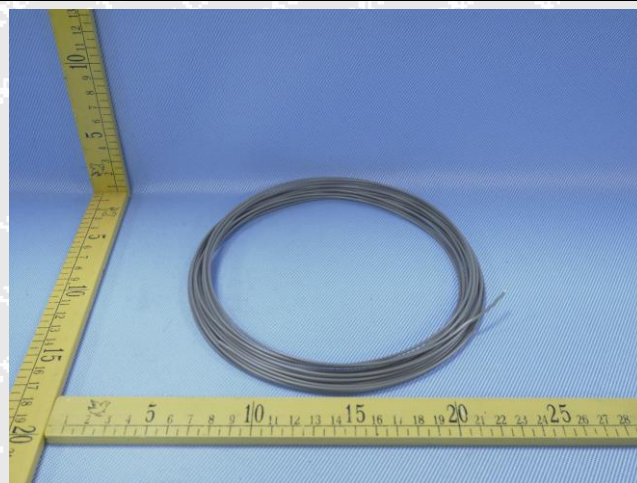
No.1



No.2



No.3

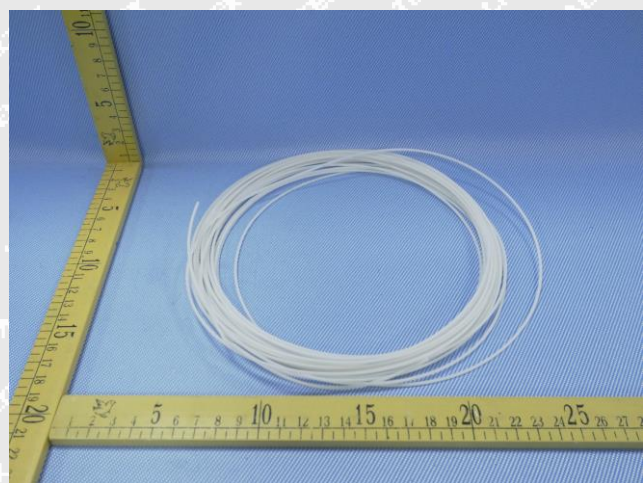


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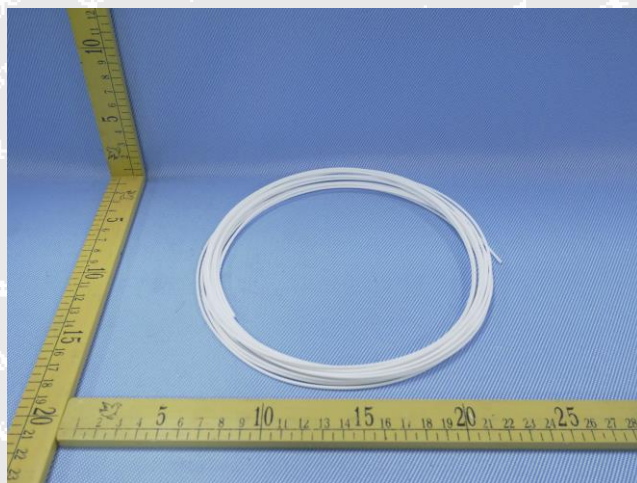


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No.5



No.6



No.7



No.8



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Test Results:**1. Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs**

Test Method/Equipment:

- 1) Disassembly, disjunction and mechanical sample preparation
- 2) With reference to IEC 62321-3-1:2026, screening –Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry
- 3) With reference to IEC 62321-4:2013+AMD1:2017 CSV, determination of Mercury by ICP-OES
- 4) With reference to IEC 62321-5:2013, determination of Lead and Cadmium by ICP-OES
- 5) With reference to IEC 62321-7-2: 2017 and IEC 62321-7-1: 2015, determination of Hexavalent Chromium by UV-Vis
- 6) With reference to IEC 62321-12:2023, determination of PBBs and PBDEs by GC-MS

Part No.	Part Description	Result of XRF					Result of Wet Chemical Testing (mg/kg)
		Cd	Pb	Hg	Cr	Br	
1	Dark golden plastic consumables	BL	BL	BL	BL	BL	NA
2	Red plastic consumables	BL	BL	BL	BL	BL	NA
3	Red plastic consumables	BL	BL	BL	BL	BL	NA
4	Grey plastic consumables	BL	BL	BL	BL	BL	NA
5	Grey-white plastic consumables	BL	BL	BL	BL	BL	NA
6	White plastic consumables	BL	BL	BL	BL	BL	NA
7	Black plastic consumables	BL	BL	BL	BL	BL	NA
8	Brown plastic consumables	BL	BL	BL	BL	BL	NA



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2. Phthalates

Test Method/Equipment:

1) With reference to IEC 62321-12:2023, determination of DBP, BBP, DEHP, DIBP by GC-MS

Serial No.	Part No.	Result (mg/kg)			
		DBP	BBP	DEHP	DIBP
T01	1+2+3+4 [△]	ND	ND	ND	ND
T02	5	ND	ND	ND	ND
T03	6	ND	ND	ND	ND
T04	7+8 [△]	ND	ND	ND	ND

Remark:

- (1) Results are obtained by XRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (for Cr(VI)) and GC-MS (for PBBs, PBDEs) is required to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2026 (unit: mg/kg)

Element	Plastics	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < IN < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < IN < (130+3\sigma) \leq OL$	$LOD < IN < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < IN < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < IN < (1500+3\sigma) \leq OL$
Cr	$BL \leq (700-3\sigma) < IN$	$BL \leq (700-3\sigma) < IN$	$BL \leq (500-3\sigma) < IN$
Br	$BL \leq (700-3\sigma) < IN$	--	$BL \leq (500-3\sigma) < IN$

BL= Below Limit

OL= Over Limit

LOD = Limit of Detection

- (2) "IN" expresses the inconclusive region, and further chemical testing to confirm whether it complies with the requirement of RoHS Directive.
- (3) The XRF screening test for RoHS elements – the reading may be different to the actual content in the sample be of non-uniformity composition.
- (4) mg/kg =milligram per kilogram=ppm, $\mu\text{g}/\text{cm}^2$ = micrograms per square centimetre.
- (5) ND = Not Detected or lower than limit of quantitation.
- (6) NA = Not Applicable, as the XRF screening test result was below the limit or as the XRF screening directly determine that test result was over the limit, it was not need to conduct the wet chemical testing.
- (7) -- = Not Regulated



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(8) LOQ = Limit of quantitation.

Test Items	Pb	Cd	Hg	Cr(VI)		PBB	PBDE	DBP	BBP	DEHP	DIBP
Units	mg/kg	mg/kg	mg/kg	mg/kg	μg/cm ²	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOQ	2	2	2	8	0.1	5	5	50	50	50	50

The LOQ for single compound of PBBs and PBDEs is 5mg/kg, LOQ of Cr(VI) for Plasticsand composite sample is 8mg/kg and LOQ of Cr(VI) for metal sample is 0.1μg/cm².

(9) According to IEC 62321-7-1:2015, determined of Cr(VI) on metal sample by boiling water extraction test method, and result is shown as Positive/Negative.

Boiling water extraction:

Negative = Absence of Cr(VI) coating, the detected concentration in boiling water extraction solution is less than 0.10μg/cm².

Positive = Presence of Cr(VI) coating, the detected concentration in boiling water extraction solution is greater than 0.13μg/cm².

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

(10)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(VI))	0.1% (1000 mg/kg)
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)
Di(2-ethylhexyl) phthalate (DEHP)	0.1% (1000 mg/kg)
Di-iso-butyl phthalate (DIBP)	0.1% (1000 mg/kg)

(11) Abbreviation:

“Pb” denotes Lead, “Cd” denotes Cadmium, “Hg” denotes Mercury, “Cr” denotes Chromium, “Cr(VI)” denotes Hexavalent Chromium, “Br” denotes Bromine, “PBBs” denotes Total Polybrominated Biphenyls, “PBDEs” denotes Total Polybrominated Diphenyl Ethers.

“DBP” denotes Dibutyl phthalate, “BBP” denotes Benzyl butyl phthalate (BBP), “DEHP” denotes Bis(2-ethylhexyl)-phthalate, “DIBP” denotes Diisobutyl phthalate, “PHT” denotes Phthalates.

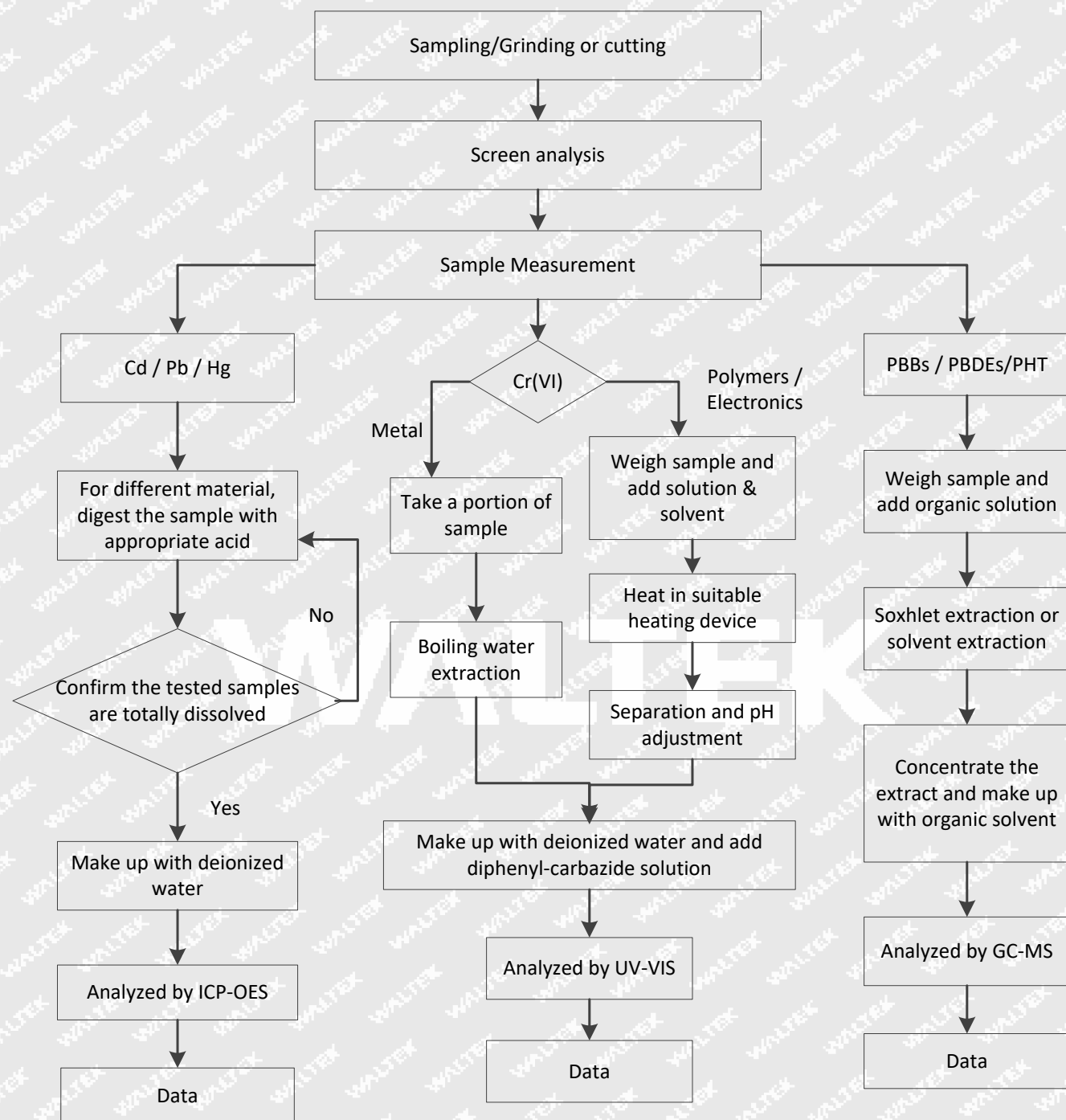
(12)“△”=As per applicant's requirement, the testing was conducted based on mixed components by weight in equal ratio, results are calculated by the minimum weight of mixed components.



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Testing Flow chart:





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Remarks:

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===== End of Report =====

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