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检测
TESTING
CNAS L6478



TEST REPORT

Report No. : WTF26F05140732R2X4C
Job No. : FSW2605201024CJ
Applicant : Guangdong Inslogic Co., Ltd
Address : Floor 6, No.162 Tanlong North Road, Tanzhou Town,
Zhonghan City, Guangdong Province, China
Sample Name : Refer to next page (s)
LOGO : 
Test Requested : With reference to EU RoHS Directive 2011/65/EU and its
amendment Directive EU 2015/863, to determine the Pb, Cd,
Hg, Cr⁶⁺, PBBs, PBDEs, DBP, BBP, DEHP, DIBP content in the
submitted sample.
Test Method : Refer to next page (s)
Test Conclusion : **Pass**
Date of Receipt Sample : 2026-05-20
Testing Period : 2026-05-20 to 2026-06-02
Date of Issue : 2026-06-08
Test Result : Refer to next page (s)

Prepared By:

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

Swing Liang



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Swing Liang
Waltek Testing Group (Foshan) Co., Ltd.
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No.	Sample Name	No.	Sample Name	No.	Sample Name
1	PLA Basic	21	PP	41	High Speed PLA
2	PLA+	22	PC	42	High-Speed PLA Pro
3	PLA Pro	23	PC-ABS	43	High Speed PLA+2.0
4	PETG	24	ABS FR V0	44	High Speed Matte PLA
5	ABS	25	ABS-GF10	45	PETG Pro
6	PCL	26	Nylon PA6/66	46	High-Speed Marble PLA
7	APLA	27	PA6-CF	47	WoodFill
8	PLA Lite	28	PA12-CF	48	NebuLux PLA
9	PLA Classic	29	PA6-GF	49	PLA Twinkling
10	Matte PLA	30	PEEK	50	Silk PLA+ Rainbow
11	PLA Glow in the dark	31	ASA	51	
12	PLA Rainbow	32	PVB	52	
13		33	PLA Meta	53	
14		34	LW-PLA	54	Four-Color Silk PLA
15		35	PLA-CF15	55	PLA Transparent Rainbow
16		36	PETG-CF10	56	
17	PLA+Silk	37	TPU 90A	57	PETG Glow in the dark
18	Dual-Color Matte PLA	38	TPU 95A	58	MetalFill PLA
19	Dual-Color Silk PLA	39	Silk TPU	/	/
20	Tri-Color Silk PLA	40	High Speed ABS	/	/



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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 62321-3-1:2013, 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	Black plastic consumables	BL	BL	BL	BL	BL	NA
2	Apricot plastic consumables	BL	BL	BL	BL	BL	NA
3	Red plastic consumables	BL	BL	BL	BL	BL	NA
4	Brown plastic consumables	BL	BL	BL	BL	BL	NA
5	Green plastic consumables	BL	BL	BL	BL	BL	NA
6	White plastic consumables	BL	BL	BL	BL	BL	NA
7	Grey plastic consumables	BL	BL	BL	BL	BL	NA
8	Green plastic consumables	BL	BL	BL	BL	BL	NA
9	White plastic consumables	BL	BL	BL	BL	BL	NA
10	White plastic consumables	BL	BL	BL	BL	BL	NA
11	Yellow plastic consumables	BL	BL	BL	BL	BL	NA
12	Purple plastic consumables	BL	BL	BL	BL	BL	NA
13	Blue-green plastic consumables	BL	BL	BL	BL	BL	NA



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Part No.	Part Description	Result of XRF					Result of Wet Chemical Testing (mg/kg)
		Cd	Pb	Hg	Cr	Br	
14	Grey plastic consumables	BL	BL	BL	BL	BL	NA
15	Red plastic consumables	BL	BL	BL	BL	BL	NA
16	Pink plastic consumables	BL	BL	BL	BL	BL	NA
17	Brown-yellow plastic consumables	BL	BL	BL	BL	BL	NA
18	Blue-yellow plastic consumables	BL	BL	BL	BL	BL	NA
19	Orange-pink plastic consumables	BL	BL	BL	BL	BL	NA
20	Multicolour plastic consumables	BL	BL	BL	BL	BL	NA
21	Black plastic consumables	BL	BL	BL	BL	BL	NA
22	White plastic consumables	BL	BL	BL	BL	BL	NA
23	Black plastic consumables	BL	BL	BL	BL	BL	NA
24	Off-white plastic consumables	BL	BL	BL	BL	IN	PBBs : ND PBDEs : ND
25	White plastic consumables	BL	BL	BL	BL	BL	NA
26	Black plastic consumables	BL	BL	BL	BL	BL	NA
27	Black plastic consumables	BL	BL	BL	BL	BL	NA
28	Black plastic consumables	BL	BL	BL	BL	BL	NA
29	Black plastic consumables	BL	BL	BL	BL	BL	NA
30	Light brown plastic consumables	BL	BL	BL	BL	BL	NA
31	Dark blue plastic consumables	BL	BL	BL	BL	BL	NA



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Part No.	Part Description	Result of XRF					Result of Wet Chemical Testing (mg/kg)
		Cd	Pb	Hg	Cr	Br	
32	Red semi-transparent plastic consumables	BL	BL	BL	BL	BL	NA
33	Green plastic consumables	BL	BL	BL	BL	BL	NA
34	White plastic consumables	BL	BL	BL	BL	BL	NA
35	Black plastic consumables	BL	BL	BL	BL	BL	NA
36	Black plastic consumables	BL	BL	BL	BL	BL	NA
37	Black plastic consumables	BL	BL	BL	BL	BL	NA
38	Blue plastic consumables	BL	BL	BL	BL	BL	NA
39	Off-white plastic consumables	BL	BL	BL	BL	BL	NA
40	Grey plastic consumables	BL	BL	BL	BL	BL	NA
41	Dark green plastic consumables	BL	BL	BL	BL	BL	NA
42	Black plastic consumables	BL	BL	BL	BL	BL	NA
43	White plastic consumables	BL	BL	BL	BL	BL	NA
44	Orange plastic consumables	BL	BL	BL	BL	BL	NA
45	Green plastic consumables	BL	BL	BL	BL	BL	NA
46	Grey plastic consumables	BL	BL	BL	BL	BL	NA
47	Brown plastic consumables	BL	BL	BL	BL	BL	NA
48	Ink green plastic consumables	BL	BL	BL	BL	BL	NA
49	Blue semi-transparent plastic consumables	BL	BL	BL	BL	BL	NA



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Part No.	Part Description	Result of XRF					Result of Wet Chemical Testing (mg/kg)
		Cd	Pb	Hg	Cr	Br	
50	Light purple plastic consumables	BL	BL	BL	BL	BL	NA
51	Pink plastic consumables	BL	BL	BL	BL	BL	NA
52	Purple plastic consumables	BL	BL	BL	BL	BL	NA
53	Blue-purple plastic consumables	BL	BL	BL	BL	BL	NA
54	Multicolour plastic consumables	BL	BL	BL	BL	BL	NA
55	Pink semi-transparent plastic consumables	BL	BL	BL	BL	BL	NA
56	Purple semi-transparent plastic consumables	BL	BL	BL	BL	BL	NA
57	White-green plastic consumables	BL	BL	BL	BL	BL	NA
58	Dark golden plastic consumables	BL	BL	BL	BL	BL	NA

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+5 ^Δ	ND	ND	ND	ND
T02	6+7+8+9+10 ^Δ	ND	ND	ND	ND
T03	11+12+13+14+15 ^Δ	ND	ND	ND	ND
T04	16+17+18+19+20 ^Δ	ND	ND	ND	ND
T05	21+22+23+24+25 ^Δ	ND	ND	ND	ND
T06	26+27+28+29+30 ^Δ	ND	ND	ND	ND
T07	31+32+33+34+35 ^Δ	ND	ND	ND	ND
T08	36+37+38+39+40 ^Δ	ND	ND	ND	ND
T09	41+42+43+44+45 ^Δ	ND	ND	ND	ND
T10	46+47+48+49+50 ^Δ	ND	ND	ND	ND
T11	51+52+53+54+55 ^Δ	ND	ND	ND	ND
T12	56+57+58 ^Δ	ND	ND	ND	ND



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Remark:

- (1) Results are obtained by XRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (for Cr^{6+}) 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: 2013 (unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$\text{BL} \leq (70-3\sigma) < \text{IN} < (130+3\sigma) \leq \text{OL}$	$\text{BL} \leq (70-3\sigma) < \text{IN} < (130+3\sigma) \leq \text{OL}$	$\text{LOD} < \text{IN} < (150+3\sigma) \leq \text{OL}$
Pb	$\text{BL} \leq (700-3\sigma) < \text{IN} < (1300+3\sigma) \leq \text{OL}$	$\text{BL} \leq (700-3\sigma) < \text{IN} < (1300+3\sigma) \leq \text{OL}$	$\text{BL} \leq (500-3\sigma) < \text{IN} < (1500+3\sigma) \leq \text{OL}$
Hg	$\text{BL} \leq (700-3\sigma) < \text{IN} < (1300+3\sigma) \leq \text{OL}$	$\text{BL} \leq (700-3\sigma) < \text{IN} < (1300+3\sigma) \leq \text{OL}$	$\text{BL} \leq (500-3\sigma) < \text{IN} < (1500+3\sigma) \leq \text{OL}$
Cr	$\text{BL} \leq (700-3\sigma) < \text{IN}$	$\text{BL} \leq (700-3\sigma) < \text{IN}$	$\text{BL} \leq (500-3\sigma) < \text{IN}$
Br	$\text{BL} \leq (300-3\sigma) < \text{IN}$	--	$\text{BL} \leq (250-3\sigma) < \text{IN}$

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
- (8) LOQ = Limit of quantitation.

Test Items	Pb	Cd	Hg	Cr^{6+}		PBB	PBDE	DBP	BBP	DEHP	DIBP
Units	mg/kg	mg/kg	mg/kg	mg/kg	$\mu\text{g}/\text{cm}^2$	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^{6+} for polymer and composite sample is 8mg/kg and LOQ of Cr^{6+} for metal sample is $0.1\mu\text{g}/\text{cm}^2$.

- (9) According to IEC 62321-7-1:2015, determined of Cr^{6+} on metal sample by boiling water extraction test method, and result is shown as Positive/Negative.

Boiling water extraction:

Negative = Absence of Cr^{6+} coating, the detected concentration in boiling water extraction solution is less than $0.10\mu\text{g}/\text{cm}^2$.

Positive = Presence of Cr^{6+} coating, the detected concentration in boiling water extraction solution is greater than $0.13\mu\text{g}/\text{cm}^2$.

Information on storage conditions and production date of the tested sample is unavailable and thus Cr^{6+} results represent status of the sample at the time of testing.



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(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 ⁶⁺)	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, “Cr⁶⁺” 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) “Δ”=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.

(13)As per client's requirement, all results of specimen are quoted from report No. WTF26F05140732X1C.

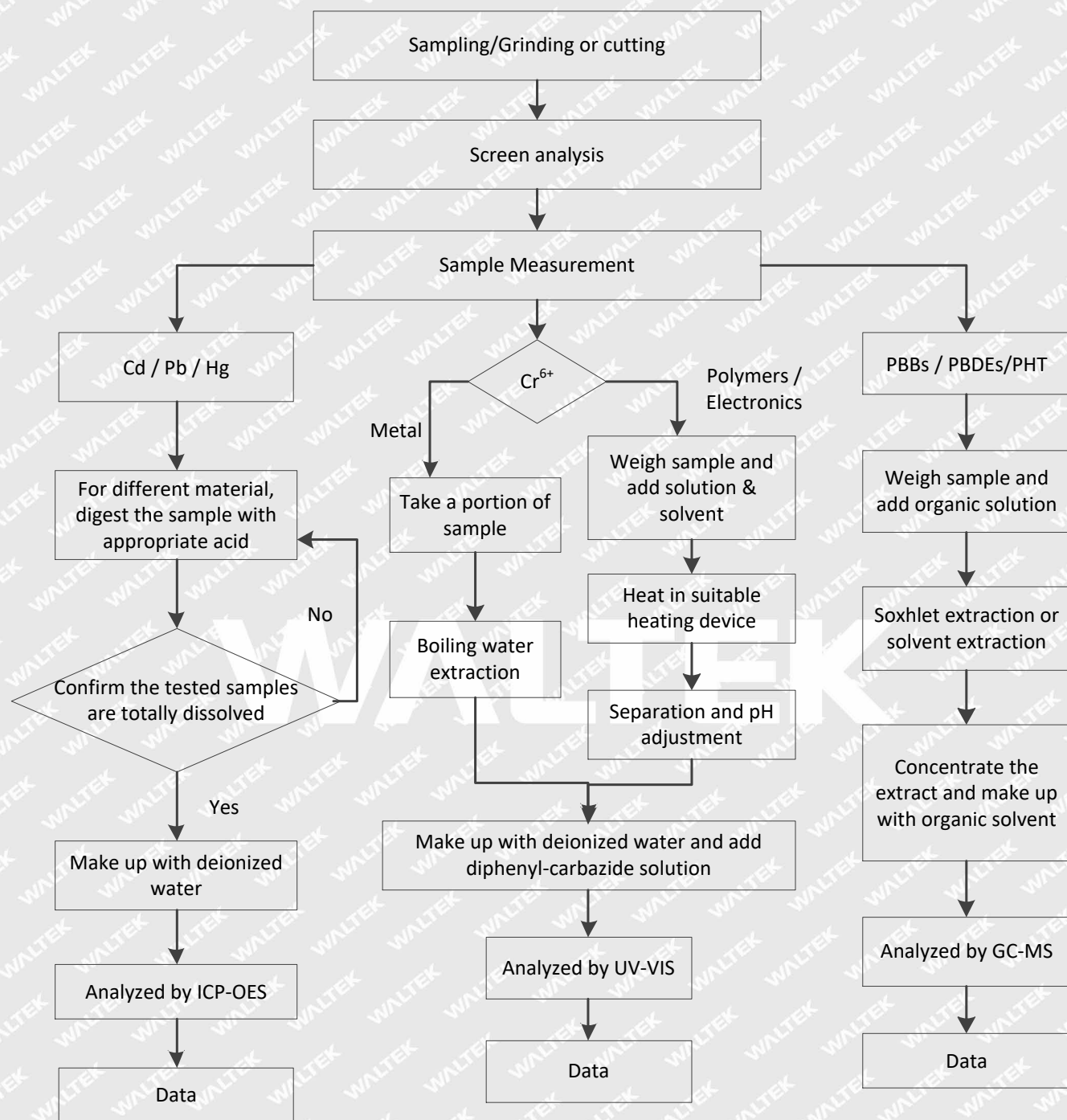
(14)This report is based on Waltek test report WTF26F05140732R2C for revising, and replaced report WTF26F05140732R2C.



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Testing Flow chart:

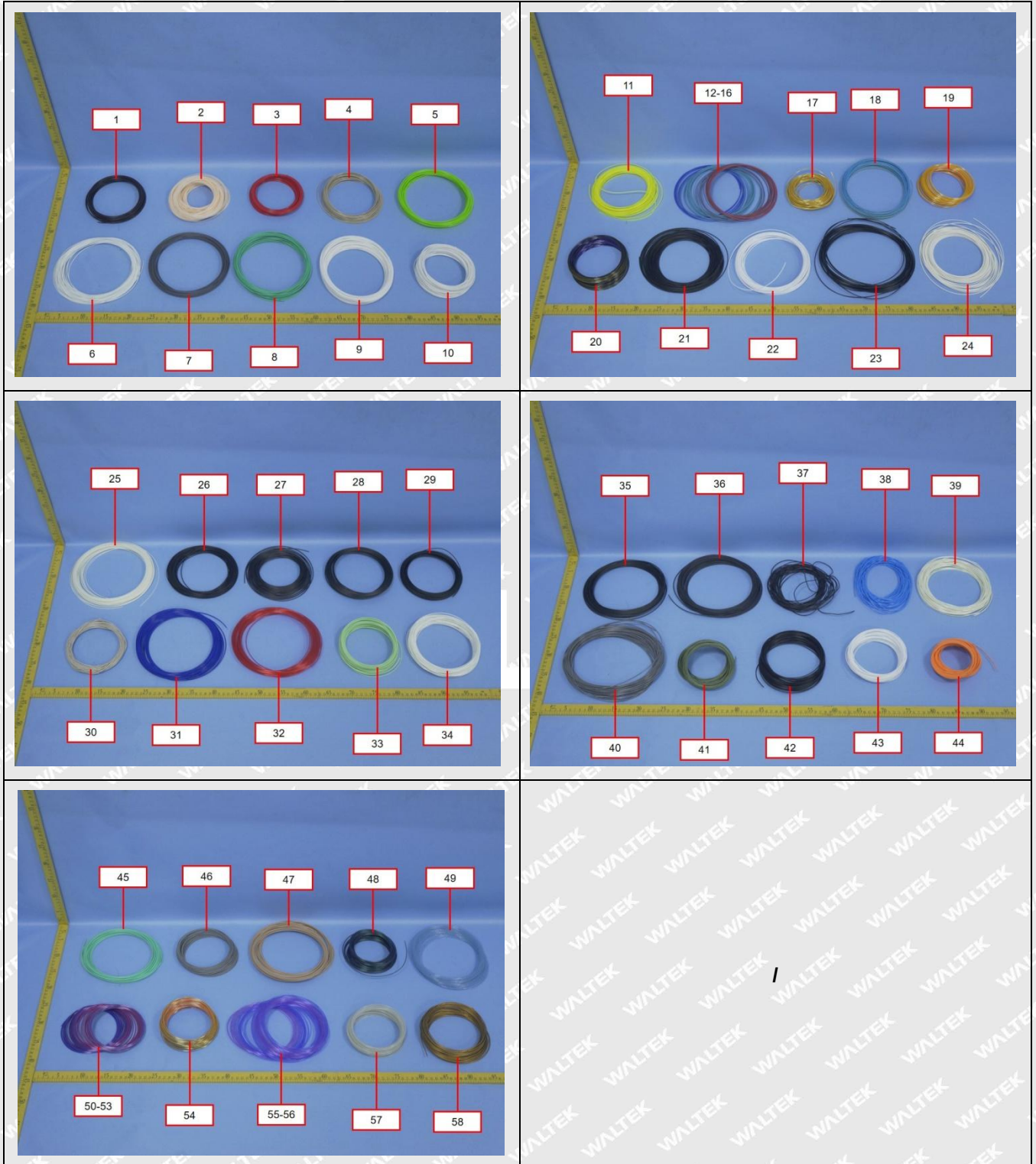




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Photograph of parts tested:





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Remarks:

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

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