

Report No.: 170368190a 002

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Client: SHENZHEN WEICHAT TECHNOLOGY CO.,LTD

Contact Information: Building E, Xiashijia Second Industrial Zone, Shijia Community, Matian Street, Guangming District, Shenzhen City, P.R.China

Identification/ Connector

Model No(s): EW-LP20

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2024-01-15

Testing Period: 2024-01-15 to 2024-01-22

Place of testing: Chemical laboratory Shenzhen

Test Specification:

Test result:

1. Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE)Benzylbutyl phthalate (BBP), Dibutyl phthalate (DBP), Bis(2-ethylhexyl) phthalate (DEHP), Diisobutyl phthalate (DIBP)
According to RoHS (recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU Annex II and its amendment

PASS

Other information:

- 1) According to customer's declaration, the following models are used the same materials as tested model.
EW-LP20S 、EW-LP20L 、EW-LP20P 、EW-LP12S 、EW-LP12L 、EW-LP12P 、EW-LP16S 、EW-LP16L 、EW-LP16P 、EW-LP24S 、EW-LP24L 、EW-LP24P 、EW-LP28S 、EW-LP28L 、EW-LP28P 、EW-LP32S 、EW-LP32L 、EW-LP32P
- 2) Test report no. 170368190a 002 supersedes report no. 170368190a 001.

For and on behalf of
TÜV Rheinland (Guangdong) Ltd.



2024-01-23

Aaliya Chen / Project Manager

Date

Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.
This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.
"Decision Rule" document announced in our website (<https://www.tuv.com/landingpage/en/qm-gcn/>) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

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Material List:Item: Connector
EW-LP20

Material No.	Material	Color	Location
M001	Plastic	black	Refer to photo
M002	Metal + plating	silver	Refer to photo
M003	Plastic	black	Refer to photo
M004	Metal + plating	golden	Refer to photo
M005	Metal + plating	silver	Refer to photo
M006	Rubber	red brown	Refer to photo
M007	Rubber	green	Refer to photo
M008	Metal	silver	Refer to photo
M009	Metal + plating	silver/black	Refer to photo
M010	Metal	silver	Refer to photo

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1.Screening Test by XRF spectroscopy

Test Method: Cadmium, Lead, Mercury, Chromium, Bromine
-- With reference to IEC 62321-3-1:2013

Test Result:

Material No.	Cd	Cr	Pb	Hg	Br
M001	BL	BL	BL	BL	d.(*1)
M002	BL	d.(*1)	BL	BL	n.a.
M003	BL	BL	BL	BL	BL
M004	BL	BL	d.(*1)	BL	n.a.
M005	BL	d.(*1)	BL	BL	n.a.
M006	BL	BL	BL	BL	BL
M007	BL	BL	BL	BL	BL
M008	BL	d.(*1)	BL	BL	n.a.
M009	BL	d.(*1)	BL	BL	n.a.
M010	BL	d.(*1)	BL	BL	n.a.

Abbreviation: Pb = Lead
Cd = Cadmium
Hg = Mercury
Cr = Chromium
Br = Bromine
n.a. = Not applicable
BL = Below limit
OL = Over limit
d. = Detected

Remark:

(*1) The screening result was detected in the inconclusive region or over limits, thus the further wet chemistry tests are suggested.

XRF Screening limits for different matrices :

Material	Concentration (%)				
	Cd	Cr	Pb	Hg	Br
Polymeric	BL≤0.006<X<0.014≤ OL	BL≤0.064<X	BL≤0.067<X<0.133≤ OL	BL≤0.066<X< 0.134≤OL	BL≤0.029<X
Metallic	BL≤0.006<X<0.014≤ OL	BL≤0.064<X	BL≤0.067<X<0.133≤ OL	BL≤0.066<X< 0.134≤OL	n.a.
Composite materials	BL≤0.004<X<0.016≤ OL	BL≤0.044<X	BL≤0.047<X<0.153≤ OL	BL≤0.046<X< 0.154≤OL	BL≤0.024<X

Remark: The symbol "X" marks the region where further investigation is necessary.

	Cd	Cr(VI)	Pb	Hg	PBBs	PBDEs
Maximum permissible Limit (%)	0.01	0.1	0.1	0.1	0.1	0.1

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(HM) Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE)

Test Method: Total Cadmium, Lead, Mercury, Chromium
- Ref. to IEC 62321-4:2013+AMD1:2017 and IEC 62321-5:2013

Chromium (VI)
- For Metal material - Ref. to IEC 62321-7-1:2015
- For Polymer, Electronic material or others materials – Ref. to IEC 62321-7-2:2017

PBBs, PBDEs – Ref. to IEC 62321-6:2015

Test Result:

	Cd	Cr(VI)	Pb	Hg	PBBs	PBDEs
Maximum Permissible Limit (%)	0.01	0.1	0.1	0.1	0.1	0.1

Material No.	(%)					
	Cd	Cr ^{VI}	Pb	Hg	PBBs	PBDEs
	RL (%)					
	0.001	0.001	0.001	0.001	0.01	0.01
M001	n.a.	n.a.	n.a.	n.a.	< RL	< RL
M002	n.a.	d.(*1)	n.a.	n.a.	n.a.	n.a.
M004	n.a.	n.a.	2.76(*3)	n.a.	n.a.	n.a.
M005	n.a.	d.(*1)	n.a.	n.a.	n.a.	n.a.
M008	n.a.	d.(*1)	n.a.	n.a.	n.a.	n.a.
M009	n.a.	d.(*1)	n.a.	n.a.	n.a.	n.a.
M010	n.a.	d.(*1)	n.a.	n.a.	n.a.	n.a.

Material No.	Chromium VI content for metal materials (µg/cm ²) (*1) RL: 0.10 µg/cm ²
M002	Negative
M005	Negative
M008	Negative
M009	Negative
M010	Negative

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Abbreviation:

Pb	=	Lead
Cd	=	Cadmium
Hg	=	Mercury
Cr	=	Chromium
Cr (VI)	=	Chromium (VI)
PBBs	=	Total Polybrominated Biphenyls
PBDEs	=	Total Polybrominated Diphenyl Ethers
<	=	Less than
RL	=	Reporting Limit
n.a.	=	Not Applicable
^	=	The total Chromium have been determined
%	=	Percentage

Remark:

- (*1) The Chromium (VI) content of metal sample in surface layer have been confirmed with reference to IEC 62321-7-1:2015 Annex.

	Chromium (VI) concentration	Qualitative result
Negative	<0.1µg/cm ²	The sample is negative (-ve) for Cr(VI). The Cr(VI) concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating
Inconclusive	≥0.1µg/cm ² and ≤0.13 µg/cm ²	The result is considered to be inconclusive. Unavoidable coating variations may influence the determination. Recommendation: if additional samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trails for the final determination.
Positive	>0.13 µg/cm ²	The sample is positive (+ve) for Cr(VI). Concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI).

- (*3) According to Annex III of 2011/65/EU, "Copper alloy containing up to 4% lead by weight" is exempt from the requirements of Article 4(1). This exemption applies to testing sample No. M004.

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BBP, DBP, DEHP, DIBP content

Test Method: ref. to IEC 62321-8:2017

Test Result:

	BBP	DBP	DEHP	DIBP
Maximum permissible Limit (%)	0.1	0.1	0.1	0.1

Test No.	Material No.	RL (%)			
		BBP	DBP	DEHP	DIBP
		0.005			
		0.005	0.005	0.005	0.005
T001	M001 + M003	< RL	< RL	< RL	< RL
T002	M006 + M007	< RL	< RL	< RL	< RL

Abbreviation: BBP= Benzylbutyl phthalate
 DBP= Dibutyl phthalate
 DEHP= Bis(2-ethylhexyl) phthalate
 DIBP= Diisobutyl phthalate
 < = less than
 RL = Reporting Limit
 %= percentage

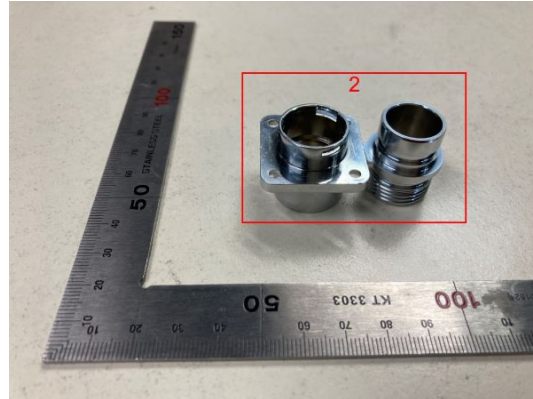
Remark:

- * The maximum permissible limit is required from the amendment (EU) 2015/863 of RoHS Directive 2011/65/EU.

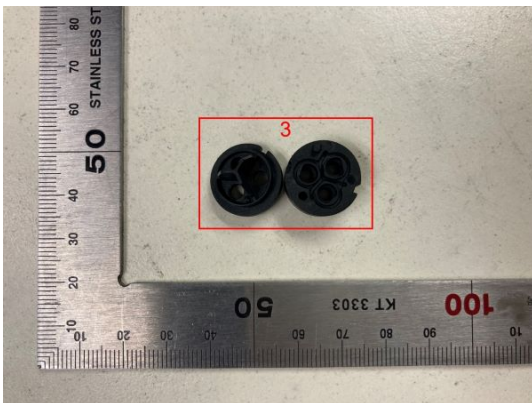
Sample Photos



M001



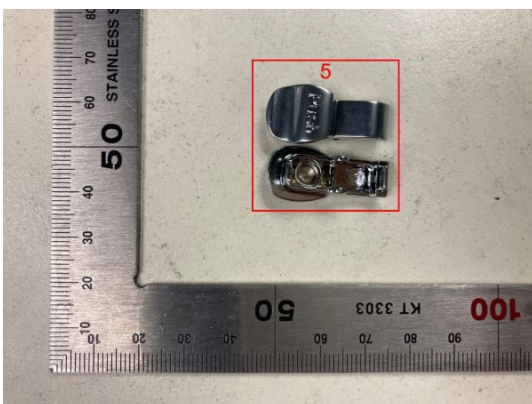
M002



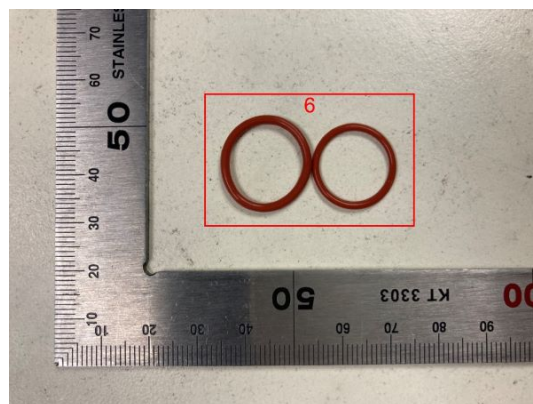
M003



M004

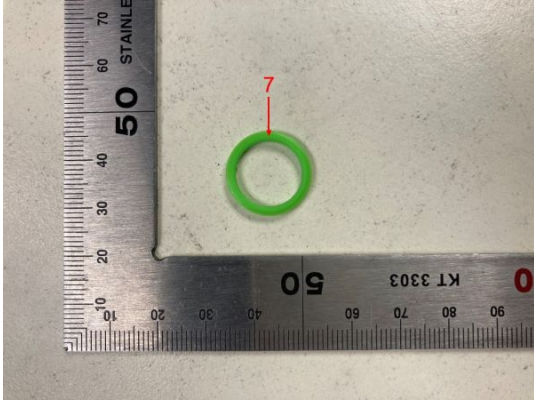


M005



M006

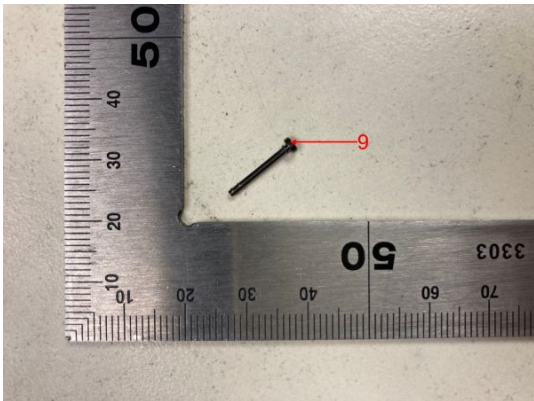
Sample Photos



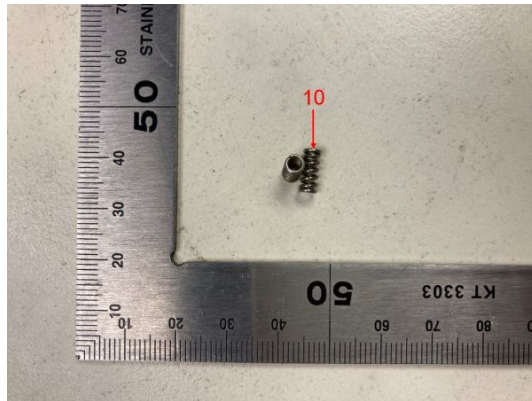
M007



M008



M009



M010



- END -

