

Report No. :GXH21070829(E)

Date : 2021/07/30

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中国认可
国际互认
检测
TESTING
CNAS L7673

TEST REPORT

Applicant : ChangSha RESI Electronics Technology Co., Ltd.
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The following merchandise was (were) submitted and identified by the client as:

Name of Sample : EWRW wirewound resistor
Test Type : Commission
Analysis No. : GXH21070829
Sample Quantity : 1
Batch No. /Brand/Model : /
Sample Received : 2021/07/21
Test Period : 2021/07/22-2021/07/30
Test Method : Please refer to next page(s).
Test Result : Please refer to next page(s).

Edited by: 

Approved by: 

Checked by: 

Official Seal: 

Conclusion:

TESTED SAMPLES	TEST ITEM	RESULT
EWWR wirewound resistor	RoHS Directive 2011/65/EU with amendment (EU) 2015/863	PASS

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863

******* TO BE CONTINUE *******

Sample Description:

Sample Number	Tested Material Description	Photo
001	Silver metal pin	
002	Green coating	
003	Silver metal wire	
004	Silver metal cover	
005	White ceramic rods	

***** TO BE CONTINUE *****

Test Results:
1.1 Screening test for the specified hazardous substances of RoHS for the selected materials of the submitted sample:

- Heavy Metal (Cadmium, Chromium, Mercury, Lead) Content Test
- Bromine Content Test

According to IEC 62321-3-1:2013, and Quantification analyzed with Energy Dispersive X-ray Fluorescence Spectrometers.

Sample No.	Total Lead	Total Cadmium	Total Chromium	Total Mercury	Total Bromine
001	BL	BL	BL	BL	NA
002	BL	BL	IN	BL	BL
003	BL	BL	IN	BL	NA
004	BL	BL	IN	BL	NA
005	BL	BL	IN	BL	BL

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

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	NA	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

Note:

1. BL = Below Limit , OL = Over Limit , IN = Inconclusive , LOD = Limit of Detection , NA = Not Applicable.

***** TO BE CONTINUE *****

2.1 Test for Heavy Metals

– Lead, Cadmium, Mercury and Hexavalent Chromium Tests according to IEC 62321-4:2013+A1:2017 & IEC 62321-5:2013 & IEC 62321-7-1:2015 & IEC 62321-7-2:2017. Analysis was conducted by ICP-OES, UV-VIS.

Element	Total Cadmium (mg/kg)	Total Lead (mg/kg)	Total Mercury (mg/kg)	Hexavalent Chromium	Hexavalent Chromium (mg/kg)
Method Detection Limit	10	10	10	-	10
Limit	100	1000	1000	-	1000
002	/	/	/	/	ND
003	/	/	/	Negative	/
004	/	/	/	Negative	/
005	/	/	/	/	ND

Note:

- All Concentrations express in “mg/kg”(milligram per kilogram), 1mg/kg = 0.0001%;
- ND = Test result was below the method detection limit or limit of quantitation ,i.e., the corresponding test item was not detected.
- Boiling-water-extraction:
 - Negative = Absence of Cr(VI) coating / surface layer: the detected concentration in boiling-water-extraction solution is less than 0.10µg with 1cm² sample surface area;
 - Positive = Presence of Cr(VI) coating / surface layer: the detected concentration in boiling-water-extraction solution is greater than 0.13µg with 1cm² sample surface area;
 - Inconclusive = the detected concentration in boiling-water-extraction solution is greater than 0.10µg and less than 0.13µg with 1cm² sample surface area;
- Positive = The result be regarded as not comply with RoHS requirement;
- Negative = The result be regarded as comply with RoHS requirement.

***** TO BE CONTINUE *****

3.1 Test for Phthalates

Test method: With reference to IEC 62321-8:2017, Analyzed by GC-MS & PY-GC-MS.

Test Item	Bis(2-ethylhexyl) phthalate (DEHP) (mg/kg)	Butyl benzyl phthalate (BBP) (mg/kg)	Dibutyl phthalate (DBP) (mg/kg)	Diisobutyl phthalate (DIBP) (mg/kg)
Method Detection Limit	100	100	100	100
Limit	1000	1000	1000	1000
002	ND	ND	ND	ND
005	ND	ND	ND	ND

Note:

- All Concentrations express in "mg/kg"(milligram per kilogram), 1mg/kg = 0.0001%;
- ND = Test result was below the method detection limit or limit of quantitation ,i.e., the corresponding test item was not detected.

SAMPLE PHOTO

******* END OF REPORT *******

Statement

1. This report is issued by The CAS Testing Technical Services (GuangZhou) Co.,Ltd. (hereinafter referred to as "Our Company").
2. This report is invalid if not affixed with authorized stamp of test and paging seal.
3. This report is invalid without signature of verifier and approver.
4. This report is invalid if being supplemented, deleted or altered.
5. Without written permission of our Company, this report can not be reproduced in part (except in whole).
6. The result(s) shown in this report refer only to the sample(s) tested.
7. Objections to this report must be submitted to our Company within 15 days. Otherwise, it will automatically deem to have accepted this report.
8. The Client shall be responsible for the accuracy, authenticity and completeness of the samples and information submitted for inspection, and the disputes arising therefrom shall be borne by the Client.
9. As any reports is issued as a result of this application for testing services, our Company will strictly keep confidentiality to the Clients. Except where disclosure is required on the basis of laws, regulations, judgments, and rulings (including in accordance with summons, court, or government proceedings).
10. The result(s) or conclusion(s) shown in this report about the description of the characteristics, composition, properties or quality are based on the specific time, methods and applicable criteria. Using different methods and criteria or under different environmental conditions for testing may come to different conclusions.
11. Since our Company's causes lead to modify the contents of this report, our Company shall reissue this report and bear the modification cost. The Client shall return the original report. Since the Client's causes lead to modify the contents of this report, the Client need to submit an application form for the change of report to our Company. The Client shall bear the modification cost and return the original report if our Company approves to reissue this report.
12. The English version of this statement is translated from the Chinese one. If there is any disagreement between them, the Chinese version will be the final explanation.