



TEST REPORT

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DATE : November 1, 2024
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Applicant:

ZHEJIANG GEYA ELECTRICAL CO., LTD.

WENZHOU BRIDGE INDUSTRIAL ZONE, BEIBAIXIANG TOWN, YUEQING, ZHEJIANG, 325603 - CHINA

Date of Submission: 2024-10-24
Test Period: 2024-10-24 to 2024-11-1
Sample Mode: Sample Presentation
BV EE Ref. No.: GYB-ESH-Q24102303-A0

Sample Description:	Sample(s) received is(are) stated to be: MCB		
Manufacturer:	/	Buyer:	/
Style No(s):	GYM10 series	PO No.:	/
Country of Origin:	/	Country of Destination:	Oversea Country

SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION
Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments (EU) 2015/863	PASS

Note: Testing as sample submitted by client, this test report is only responsible for the conformity of the tested items. The client is responsible for the representative and authenticity of the submitted samples.

REMARK

If there are questions or concerns on this report, please contact the following persons:

General enquiry and invoicing

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**BUREAU VERITAS
CONSUMER PRODUCTS SERVICES DIVISION (SHANGHAI)**

Laboratory Test Location:

No.368, Guangzhong Road, Zhuanqiao Town, Minhang, Shanghai

No.168, Guanghua Road, Zhuanqiao Town, Minhang, Shanghai

PREPARED BY: AVA YU

APPROVED BY: Lynd Lv
Technical Specialist



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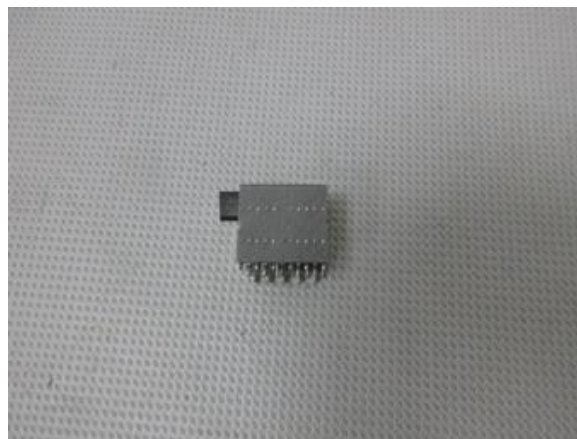
This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



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Photo of the Submitted Sample





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TEST RESULT

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments (EU) 2015/863

Test Method : See Appendix.

See Analytes and their corresponding Maximum Allowable Limit in Appendix

-			Result									
Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	DBP	BBP	DEHP	DIBP	Conclusion
Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item	Description	Location	-	-	-	-	-	-	-	-	-	-
1	Silvery metal	Housing	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
2	Grey plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
3	Grey plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
4	Grey plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
5	Silvery metal spring	Inside	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
6	Grey plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
7	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
8	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
9	Silvery metal screw		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
10	Silvery metal		ND	ND	ND	Negative*	NA	NA	NA	NA	NA	PASS
11	Beige plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
12	Silvery metal screw		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
13	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
14	Coppery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
15	Coppery metal contact point with silvery plating		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
16	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
17	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
18	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
19	Silvery metal spring		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
20	White plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
21	White plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
22	Beige plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
23	Beige plastic		ND	ND	ND	ND	ND*	ND*	ND*	ND*	ND*	SR
24	Silvery metal spring		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
25	Silvery metal		ND	ND	ND	Negative*	NA	NA	NA	NA	NA	PASS
26	Coppery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
27	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
28	Brown plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
29	Silvery metal spring with black plating		ND	ND	ND	Negative*	NA	NA	NA	NA	NA	PASS
30	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
31	Coppery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
32	Silvery metal magnet		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
33	Grey plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS



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-			Result									
Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	DBP	BBP	DEHP	DIBP	Conclusion
Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item	Description	Location	-	-	-	-	-	-	-	-	-	-
34	Silvery metal	Inside	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
35	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS

Note / Key :

ND = Not detected

NR = Not requested

Detection Limit: See Appendix.

“>” = Greater than

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

NA = Not applicable

“<” = Less than

EX= Exempted

Remark :

- The testing approach is listed in table of Appendix.
- * denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness.
- Only selected example(s) is (are) indicated on the photograph(s) in Comment.
- According to European Parliament and Council Directive 2011/65/EU, Article 5 “Adaptation of the Annexes to scientific and technical progress”, exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.

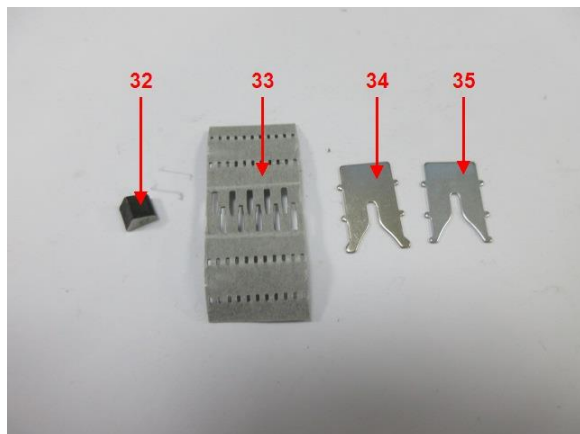
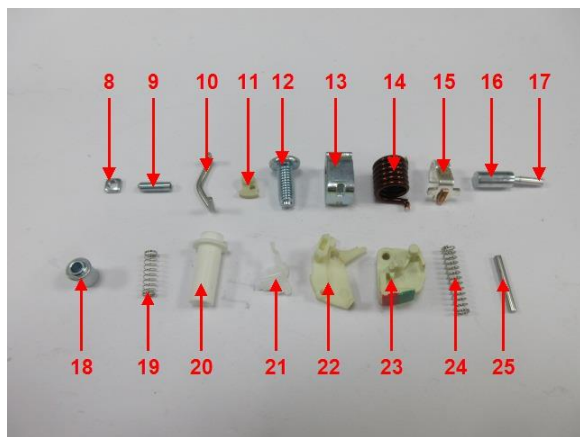
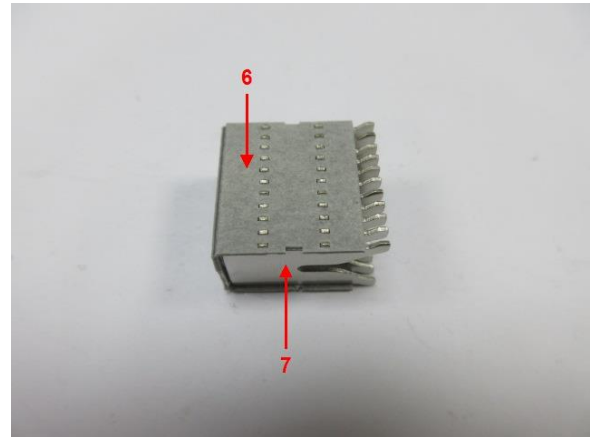
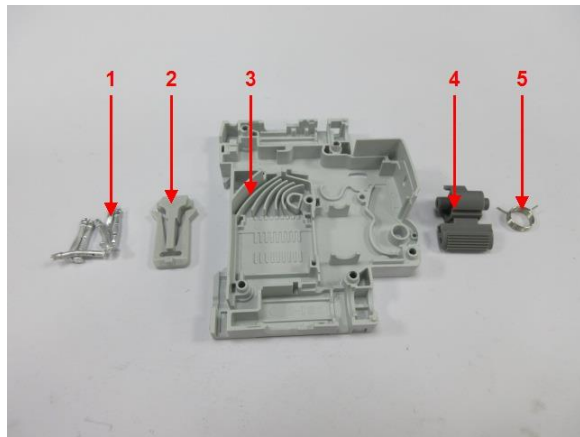


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Comment :

Photograph depicting Test Item(s)



END



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APPENDIX

List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit [Compliance Test for European Parliament and Council Directive 2011/65/EU with its Amendments (EU) 2015/863] :						
No.	Name of Analyte(s)	Detection Limit (mg/kg)				Maximum Allowable Limit (mg/kg)
		X-ray fluorescence (XRF) ^[a]			Wet Chemistry	
		Plastic	Metallic / glass / ceramic	Others		
1	Lead (Pb)	100	200	200	10 ^[b]	1000
2	Cadmium (Cd)	50	50	50	10 ^[b]	100
3	Mercury (Hg)	100	200	200	10 ^[c]	1000
4	Chromium (Cr)	100	200	200	NA	NA
5	Chromium VI (Cr VI)	NA	NA	NA	3 ^[g, h] / 10 ^[d] / See ^[e, i]	1000 / Negative ^[i]
6	Bromine (Br)	200	NA	200	NA	NA
7	Polybromobiphenyls (PBBs) - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB)	NA	NA	NA	Each 50 ^[f]	Sum 1000
8	Polybromodiphenyl ethers (PBDEs) - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) -Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE)	NA	NA	NA	Each 50 ^[f]	Sum 1000
9	Dibutyl phthalate (DBP) Butyl benzyl phthalate (BBP) Di-2-ethylhexyl phthalate (DEHP) Diisobutyl phthalate (DIBP)	NA	NA	NA	Each 500 ^[j]	Each 1000
[a]	NA = Not applicable IEC = International Electrotechnical Commission					
[b]	Test method with reference to International Standard IEC 62321-3-1: 2013.					
[b]	Test method with reference to International Standard IEC 62321-5: 2013.					
[c]	Test method with reference to International Standard IEC 62321-4: 2013+AMD1: 2017.					
[d]	Polymers and Electronics - Test method with reference to International Standard IEC 62321-7-2: 2017.					
[e]	Metal - Test method with reference to International Standard IEC 62321-7-1: 2015.					
[f]	Test method with reference to International Standard IEC 62321-6: 2015.					
[g]	Leather - Test method International Standard ISO 17075: 2017.					
[h]	Other Than Metal, Leather, Polymers and Electronics - Test method with reference to International Standard ISO 17075: 2017.					
[i]	Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Parliament and Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 2011/65/EU, Article 4(1).					
[j]	Test method with reference to International Standard IEC 62321-8: 2017					
Testing Approach [Compliance Test for European Parliament and Council Directive 2011/65/EU] :						
The testing approach was with reference to the following document(s).						
1	International Standards IEC 62321-1: 2013 and IEC 62321-2: 2021					
2	“RoHS Enforcement Guidance Document Version 1” by EU RoHS Enforcement Authorities Informal Network. (May 2006)					
3	“RoHS Regulations - Government Guidance Notes” by United Kingdom Department for Business Innovation & Skills. (February 2011)					
4	“Final Report to RoHS substances (Hg, Pb, Cr(VI), Cd, PBB and PBDE) in electrical and electronic equipment in Belgium” by Belgium Federal Public Service Health, Food Chain Safetv and Environment. (November 2005)					



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Annex

The client declared that the materials used of below Styles are same as tested style.

GYM10DC

Remark:

Since the client was not able to provide the sample of additional Style, above additional Style(s) hasn't been tested, but only based on the guarantee letter provided by the client. Bureau Veritas-CPS takes no responsibility for any mistakes and the problems of product consistency caused by inaccurate and/or invalid information submitted by the client. The client will take the responsibility of all discrepancy and risk.