中国认可
国际互认
检测
TESTING
CNAS L1744

TEST REPORT

LAB NO. : **(8818)197-0003**
DATE : **Jul 23, 2018**

APPLICANT	:	**GLAMOR OPTOELECTRONICS TECHNOLOGY CO.,LTD** NO.3,GUANGFENG INDUSTRIAL PARK, WEST DISTRICT, ZHONGSHAN CITY, GUANGDONG, CHINA
DATE OF SUBMISSION	:	JUL 16, 2018
TEST PERIOD	:	JUL 16, 2018 TO JUL 23, 2018
SAMPLE DESCRIPTION	:	LED STRIP LIGHT & LED NEON FLEX
Style No. :		SM2D5050-230V-Y-X, N2C-230V-Y-X, NU-230V-Y-X, ND-230V-Y-X, N2H-230V-Y-X, SM2D2835-230V-Y-X, SM2D5630-230V-Y-X (‘Y’REPRESENT THE LENGTH OF PRODUCT, ‘X’ REPRESENT THE LED COLORS)
Sample Size:		8

SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION	REMARK
European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)	PASS	-

BUREAU VERITAS SHENZHEN CO.,LTD
DONGGUAN BRANCH

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RT/ER/JW

REMARK

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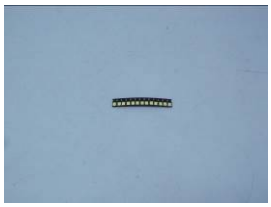
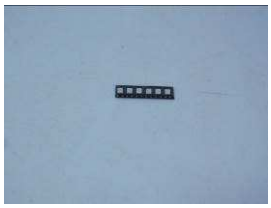
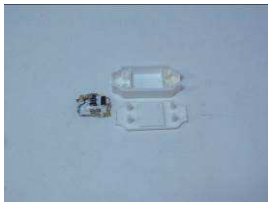
Photo of the Submitted Sample

Test Item Description and Photo List

Test Item(s)	Sample Photo	Item / Component Description(s)	Location(s)	Style(s)
I001		Yellow/white body	SMD LED, LED strip light	2835 LED
I002		Yellow/white body	SMD LED, LED strip light	5630 LED
I003		Silvery/white body	SMD LED, LED strip light	2835 LED
I004		Silvery/white body	SMD LED, LED strip light	5050 LED
I005		Silvery/white body	SMD LED, LED strip light	5630 LED
I006		White soft plastic	Coating, wire insulation, LED strip light	Neon band cross section
I007		White soft plastic	Wire insulation, LED strip light	
I008		Silvery plated coppery metal	Wire, LED strip light	

Test Item(s)	Sample Photo	Item / Component Description(s)	Location(s)	Style(s)
I009		Silvery metal	Wire, LED strip light	Environmental protection solder wire
I010		Silvery metal	Pin, AC plug, cable, LED strip light	Patch lamp belt
I011		White plastic	Pin holder, AC plug, cable, LED strip light	
I012		White soft plastic	Cover, AC plug, cable, LED strip light	
I013		Black printed white soft plastic	Wire jacket, cable, LED strip light	
I014		White soft plastic	SR, cable, LED strip light	
I015		Brown soft plastic	Wire insulation, cable, LED strip light	
I016		Blue soft plastic	Wire insulation, cable, LED strip light	
I017		Coppery metal	Wire, cable, LED strip light	
I018		Beige/translucent soft plastic	Heat shrinkable tube, cable, LED strip light	
I019		Translucent soft plastic	Cover, DC plug, cable, LED strip light	
I020		Silvery metal	Pin, DC plug, cable, LED strip light	
I021		White plastic	Pin holder, DC plug, cable, LED strip light	
I022		White soft plastic	Heat shrinkable tube, DC plug, cable, LED strip light	
I023		Transparent soft plastic	Wire insulation, cable, LED strip light	
I024		Yellow/white body	SMD LED, data wire, cable, LED strip light	
I025		White printed black body	SMD resistor, data wire, cable, LED strip light	
I026		Silvery solder	Solder, data wire, cable, LED strip light	
I027		Black/white printed brown plastic with coppery metal	Data wire, cable, LED strip light	

Test Item(s)	Sample Photo	Item / Component Description(s)	Location(s)	Style(s)
I028		Silvery plated coppery metal	Wire, cable, LED strip light	Patch lamp belt
I029		White plastic	Terminal, cable, LED strip light	
I030		Translucent soft plastic	Cover, terminal, cable, LED strip light	
I031		Silvery solder	Solder, cable, LED strip light	
I032		White plastic	Holder, PCB, LED strip light	
I033		White glue	Glue, PCB, LED strip light	
I034		Black body	Diode, PCB, LED strip light	
I035		Silvery metal	Pin, diode, PCB, LED strip light	
I036		Silvery plated coppery metal	Connector, fuse, PCB, LED strip light	
I037		Transparent body	Fuse, PCB, LED strip light	
I038		Silvery metal	Pin, fuse, PCB, LED strip light	
I039		Silvery solder	Solder, PCB, LED strip light	
I040		Green coated brown plastic with coppery metal	PCB, LED strip light	

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)

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	**Conclusion**
Unit	mg/kg						-
Test Item(s)	-	-	-	-	-	-	-
I001	ND	ND	ND	ND	ND	ND	PASS
I002	ND	ND	ND	ND	ND	ND	PASS
I003	ND	ND	ND	ND	ND	ND	PASS
I004	ND	ND	ND	ND	ND	ND	PASS
I005	ND	ND	ND	ND	ND	ND	PASS
I006	ND	ND	ND	ND	ND	ND	PASS
I007	ND	ND	ND	ND	ND	ND	PASS
I008	ND	ND	ND	ND	NA	NA	PASS
I009	ND	ND	ND	ND	NA	NA	PASS
I010	33000*	ND	ND	ND	NA	NA	EXEMPTED#
I011	ND	ND	ND	ND	ND*	ND*	PASS
I012	ND	ND	ND	ND	ND*	ND*	PASS
I013	ND	ND	ND	ND	ND	ND	PASS
I014	ND	ND	ND	ND	ND	ND	PASS
I015	ND	ND	ND	ND	ND	ND	PASS
I016	ND	ND	ND	ND	ND	ND	PASS
I017	ND	ND	ND	ND	NA	NA	PASS
I018	ND	ND	ND	ND	ND	ND	PASS
I019	ND	ND	ND	ND	ND	ND	PASS
I020	30000*	ND	ND	ND	NA	NA	EXEMPTED#
I021	ND	ND	ND	ND	ND*	ND*	PASS
I022	ND	ND	ND	ND	ND	ND	PASS
I023	ND	ND	ND	ND	ND	ND	PASS
I024	ND	ND	ND	ND	ND	ND	PASS
I025	ND	ND	ND	ND	ND	ND	PASS
I026	ND	ND	ND	ND	NA	NA	PASS
I027	ND	ND	ND	ND	ND	ND	PASS

I028	ND	ND	ND	ND	NA	NA	PASS
I029	ND	ND	ND	ND	ND*	ND*	PASS
I030	ND	ND	ND	ND	ND	ND	PASS
I031	ND	ND	ND	ND	NA	NA	PASS
I032	ND	ND	ND	ND	ND*	ND*	PASS
I033	ND	ND	ND	ND	ND	ND	PASS
I034	ND	ND	ND	ND	ND*	ND*	PASS
I035	ND	ND	ND	ND	NA	NA	PASS
I036	ND	ND	ND	ND	NA	NA	PASS
I037	ND	ND	ND	ND	ND	ND	PASS
I038	ND	ND	ND	ND	NA	NA	PASS
I039	ND	ND	ND	ND	NA	NA	PASS
I040	ND	ND	ND	ND	ND	ND	PASS

Note / Key:

ND = Not detected ">" = Greater than "<" = Less than
NR = Not requested mg/kg = milligram(s) per kilogram = ppm = part(s) per million
NA = Not applicable % = percent 10000 mg/kg = 1 %
Detection Limit : See Appendix.

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.
- According to European 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.
- #According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 6(c) is reiterated here "Copper alloy containing up to 4 % lead by weight.". Test Item(s) 010,020 was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found lead level should be exempted.

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] :

No.	Name of Analytes	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, j]	1000 / Negative[j]
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

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] :	
	NA = Not applicable
[a]	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: 2017.
[d]	**(#)Polymers and Electronics - Test method with reference to International Standard IEC 62321: 2008, Annex C.**
[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 17075-1:2017.
[h]	Other Than Metal, Leather, Polymers and Electronics - Test method with reference to International Standard ISO 17075-1:2017.
[i]	The principle of this method was evaluated and supported by two studies organized by IEC TC 111 WG3. These studies were focused on detecting the presence of Cr VI in the corrosion protection coatings on metallic samples.
[j]	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).

Note: Tests with (#) accredited under CNAS testing standard.

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: 2013
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 Safety and Environment. (November 2005)

*** End of Report ***