

# TEST REPORT

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Applicant Name :  
Applicant Address :

The following information was submitted and identified by/on behalf of the client:

Sample Name : Dyno torch frosted  
 Sample Material : /  
 Sample Model : /  
 Date of receipt : Nov.26,2015  
 Testing Period : Nov.26,2015- Dec.10,2015  
 Testing Category : Applicant Testing  
 Test Requested : As specified by client  
 Test Method : Please refer to the following page  
 Test Instrument : Please refer to the following page  
 Testing Results : Please refer to the following page

**Testing summary of Submitted Sample and Tested Component on Submitted Sample:**

No.	Test items	Conclusion
1	RoHS – XRF Scanning (Pb, Hg, Cd, Cr, Br) + chemical method	Pass

Approved by:



Laboratory Manager: Waterson Liu

Issued Date: Dec.10, 2015  
No. 15355524

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## Testing Results:

### 1. RoHS - XRF Scanning (Pb, Hg, Cd, Cr, Br) + chemical method

- Test method: With reference to IEC 62321-3:2013, determination of Cadmium, Lead, Mercury, Chromium and Br by XRF;
- (1) With reference of IEC 62321-4:2013, IEC 62321-5:2013 to determine Cadmium, Lead and Mercury by ICP-OES;
  - (2) With reference of IEC 62321:2008 to determine Hexavalent Chromium by UV-Vis,
  - (3) With reference of IEC 62321:2008 to determine PBBs and PBDEs by GC-MS.

No.	Parts Name	Test Item						Conclusion
		Pb	Cd	Hg	CrVI	PBBs	PBDEs	
001	Black plastic shell	ND	ND	ND	ND	ND	ND	Pass
002	Red translucent plastic shell	BL	BL	BL	BL	BL	BL	Pass
003	Black translucent plastic shell	BL	BL	BL	BL	BL	BL	Pass
004	Gray plastic	BL	BL	BL	BL	ND	ND	Pass
005	Gray rope	BL	BL	BL	BL	ND	ND	Pass
006	Metal rope buckle	ND	ND	ND	Ne	-	-	Pass
007	Yellow plastic sheet	BL	BL	BL	BL	BL	BL	Pass
008	Silver metal	ND	ND	ND	Ne	-	-	Pass
009	Screw	ND	ND	ND	Ne	-	-	Pass
010	Transparent plastic sheet	BL	BL	BL	BL	BL	BL	Pass
011	White plastic gear	BL	BL	BL	BL	BL	BL	Pass
012	Magnet	ND	ND	ND	Ne	-	-	Pass
013	Creamy white plastic	BL	BL	BL	BL	BL	BL	Pass
014	Metal bar	ND	ND	ND	Ne	-	-	Pass
015	Button battery	ND	ND	ND	-	-	-	Pass
016	Bright silver plastic	ND	ND	ND	ND	ND	ND	Pass
017	Plastic lamp holder	BL	BL	BL	BL	ND	ND	Pass
018	Switch-Black button	BL	BL	BL	BL	BL	BL	Pass
019	Switch-Metal case	ND	ND	ND	Ne	-	-	Pass
020	Switch-Yellow plastic	BL	BL	BL	BL	ND	ND	Pass
021	Switch-Red wire skin	BL	BL	BL	BL	BL	BL	Pass
022	Switch-Wire line core	27	ND	ND	Ne	-	-	Pass
023	Switch-Ceramic resistor	BL	BL	BL	BL	BL	BL	Pass
024	Enamelled wire	ND	ND	ND	Ne	-	-	Pass

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Parameter:	Unit	Requirement	Method Detection Limit (MDL)
Lead (Pb)	mg/kg	1000	5
Cadmium (Cd)	mg/kg	100	5
Mercury (Hg)	mg/kg	1000	5
Chromium VI (Cr VI)	mg/kg	1000	5
Group PBBs	mg/kg	1000	5
Group PBDEs	mg/kg	1000	5

As specified by client, with XRF analysis toxic harmful substance content, All kinds of matrixs screening of the element is limited see chart (Unit: mg/kg)

Elements	Polymer material	Metal material/ Inorganic nonmetallic material	Electronic component
Lead (Pb)	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Cadmium (Cd)	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Mercury (Hg)	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Chromium (Cr)	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$
Bromine (Br)	$BL \leq (300-3\sigma) < X$	/	$BL \leq (250-3\sigma) < X$

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**Note:**

1. Unit: mg/kg. 1mg/kg=1ppm=0.0001%
- 2.MDL=Method Detection Limit
- 3.ND=Not Detected(< MDL)
- 4.“-”= Not Regulated or Not Applicable
- 5.3σ = Analysis shows that the instrument reproducibility
- 6.BL=Below Limit; OL=Over Limit
7. Ne = Negative, Absence of CrVI coating,  
Po = Positive, Presence of CrVI coating, the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm<sup>2</sup> sample surface area.
- 8.“Results of XRF” is the result on total Br and total Cr while restricted substances are PBBs/PBDEs and Cr(VI)
- 9.Lead、Cadmium、Mercury and Hexavalent Chromium(CrVI) MDL:2mg/kg
- 10.# = Spot test method:  
Negative = absence of Cr(VI) in the metallic sample, Positive = presence of Cr(VI) in the metallic sample  
(The tested sample should further verified by boiling-water-extraction method if the spot test result cannot be confirmed)  
Boiling-water-extraction:  
Negative = absence of Cr(VI) in the metallic sample  
Positive = presence of Cr(VI) in the metallic sample  
Boiling-water-extraction solution is equal or greater than 0.02mg/kg with 50cm<sup>2</sup> sample surface area  
For corrosion protection coatings on metals: Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.

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Annex: **Sample Photo**



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The results shown here refer only to the sample(s) tested, unless otherwise stated. This report can only be reproduced in full, not partially, except by explicit written permission of the laboratory

\*\*\*\*\* End of Report \*\*\*\*\*