

Test Report No.: 180211973e 001

Page 1 of 7

Client: Taizhou Kinsuny Optoelectronics Technology Co.,Ltd.

Contact Information: Building 45,Juxing Industrial Area, Xiachen Town, Jiaojiang, Taizhou, Zhejiang, China

**Identification/
Model No(s):** Led lighting plastic housing
KZN0175, KZN0375, KJN0475, KZN0575, KZN0785A, KZN0885A, KZN01175C, KZN01370A, KZN01775, KZN09100A, KZN010100A, KJN01275, KFN02075, KZG0475

Sample obtaining method: Sending by customer

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2023-03-15

Test period: 2023-03-15 to 2023-03-29

Test specification:

Customer's requirement:

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 Directive (EU) 2015/863

Test result:

PASS

Other Information:

Country of Origin: China

Remark: ^According to customer's requirement, only the appointed materials have been tested.

For and on behalf of
TÜV Rheinland / CCIC (Ningbo) Co., Ltd.



2023-04-18 Xianqiang Xie / Department 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.

Test Report No.: 180211973e 001

Page 2 of 7

Remark:

Taizhou Kinsuny Optoelectronics Technology Co.,Ltd. declared that the following models and test model KZN0175, KZN0375, KJN0475, KZN0575, KZN0785A, KZN0885A, KZN01175C, KZN01370A, KZN01775, KZN09100A, KZN010100A, KJN01275, KFN02075, KZG0475 are the same serials, all components were made by the same raw material but different in shapes and sizes. Taizhou Kinsuny Optoelectronics Technology Co.,Ltd. will be responsible for this statement.

Reference No.

KZN0275, KZN038080, KZN0380160, KZN0380240, KZN0375-B, KZN0375-C, KZN0395, KZN03100100, KZN03100200, KZN03100300, KJN048080, KJN0480160, KJN0480240, KZN058080, KZN0580160, KZN0580240, KJN0670, KZN0785B, KZN0775A, KZN0885B, KZN0875A, KZN09100B, KZN09100C, KZN09100D, KZN09100-E, KZN09100-F, KZN09100-1, KZN09100-2, KZN09186A, KZN09186B, KZN09186C, KZN09186D, KZN09186-E, KZN09186-F, KZN09186-1, KZN09186-2, KZN010100B, KZN010100C, KZN010100D, KZN010100-E, KZN010100-F, KZN010100-1, KZN010100-2, KZN01085, KZN010186A, KZN010186B, KZN010186C, KZN010186D, KZN010186-E, KZN010186-F, KZN010186-1, KZN010186-2, KZN01175A, KZN01175B, KJN0128080, KJN01280160, KJN01280240, KZN01370B, KZN01370C, KZN01475, KZN0148080, KZN01575, KZN0158080, KZN01670, KZN017100, KZN0178080, KZN01780160, KZN01780240, KZN01870, KZN01875A, KZN01875B, KZN01875C, KZN01975-A, KZN01975-B, KZN01975-C, KZN01975-D, KZN01975-E, KZN01975-F, KZN01975-G, KZN01975-H, KZN01985-A, KZN01985-B, KZN01985-C, KZN01985-D, KZN01985-E, KZN01985-F, KZN01985-G, KZN01985-H, KZN02175-A, KZN021100-A, KZN0218080-A, KZN02180160-A, KZN02180240-A, KZN02175-B, KZN021100-B, KZN0218080-B, KZN02180160-B, KZN02180240-B, KZN03-STAR, KJN04-STAR, KZN05-STAR, KZN03100, KJN04100, KZN05100, KJN012100, KGX53-01Q, KGX53-01M, KZG0395, KZG03125, KZG0395-MQ, KZG03125-MQ, KZG0395-M, KZG03125-M, KZG0395-Q, KZG03125-Q, KFN0208080, KFN0201975, KFN020100, KQN03Q, KQN04Q, KQN04R, KQN05R, KZN03135, KZN03135135, KZE27-A, KZE27-B, KZN022110110, KZN022110220, KZN0375-R, KZN038080C-R, KJN0475-R, KJN048080-R, KZN0575-R, KZN058080-R, KZN09100-T, KZN09186-T, KZN01155-A, KZN01155-B, KZN-**, KZG-**, KFN-**, KJN-**, KQN-** (** represents 000000000-999999999 with the same material but different appearance)

Test Report No.: 180211973e 001

Page 3 of 7

Material List:**Item:** Led lighting plastic housing

Material No.	Material	Color	Location
M001	Plastic	black	refer to photo
M002	Plastic	silver	refer to photo
M003	Plastic	white	refer to photo
M004	Plastic	golden	refer to photo
M005	Plastic	rose gold	refer to photo
M006	Plastic	silver	refer to photo
M007	Plastic	golden	refer to photo
M008	Plastic	black	refer to photo
M009	Plastic	dark magenta	refer to photo
M010	Plastic	blue	refer to photo
M011	Plastic	dark red	refer to photo
M012	Plastic	green	refer to photo
M013	Plastic + coating	golden	refer to photo
M014	Plastic + coating	silver	refer to photo
M015	Plastic + coating	black	refer to photo
M016	Plastic + coating	yellow	refer to photo
M017	Plastic	black	refer to photo
M018	Metal	silver	refer to photo
M019	Metal	silver	refer to photo
M020	Metal	silver	refer to photo

Test Report No.: 180211973e 001

Page 4 of 7

1. Screening Test by XRF Spectroscopy

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

Material No.	Result (%)				
	Cd	Pb	Cr [^]	Hg	Br [^]
M001	BL	BL	BL	BL	BL
M002	BL	BL	BL	BL	BL
M003	BL	BL	BL	BL	BL
M004	BL	BL	BL	BL	BL
M005	BL	BL	BL	BL	BL
M006	BL	BL	BL	BL	BL
M007	BL	BL	BL	BL	BL
M008	BL	BL	BL	BL	BL
M009	BL	BL	BL	BL	BL
M010	BL	BL	BL	BL	BL
M011	BL	BL	BL	BL	BL
M012	BL	BL	BL	BL	BL
M013	BL	BL	BL	BL	BL
M014	BL	BL	BL	BL	BL
M015	BL	BL	BL	BL	BL
M016	BL	BL	BL	BL	BL
M017	BL	BL	BL	BL	BL
M018	BL	BL	BL	BL	n.a.
M019	BL	BL	BL	BL	n.a.
M020	BL	BL	BL	BL	n.a.

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

Remark:

- (*1) The screening result was detected above the screening limits, thus the further wet chemistry tests are suggested.
- (*2) Component(s)/ materials(s) with an area of less than 2mm x2 mm will not be selected for testing according to RoHS Directive 2011/65/EU due to technical reason.
For the test sample does not have detail materials information provided by client, visually identical materials (e.g. wire insulation, solder points, etc.) will be considered as the same material.
Solder points on a printing circuit board will be examined several times based on optical anomalies or discoloration of the solder point(s) unless the solder point(s) is obviously generated automatically during production.
All other materials will be sampled and tested at one test point representatively.

XRF Screening limits for different materials:

XRF Screening limits for different matrices :

Materials	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

Test Report No.: 180211973e 001

Page 6 of 7

2. BBP, DBP, DEHP, DIBP content

Test method: IEC 62321-8:2017

Ref. to IEC 62321-8:2017

Organic solvent extraction, analyzed by GCMS

Test result:

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

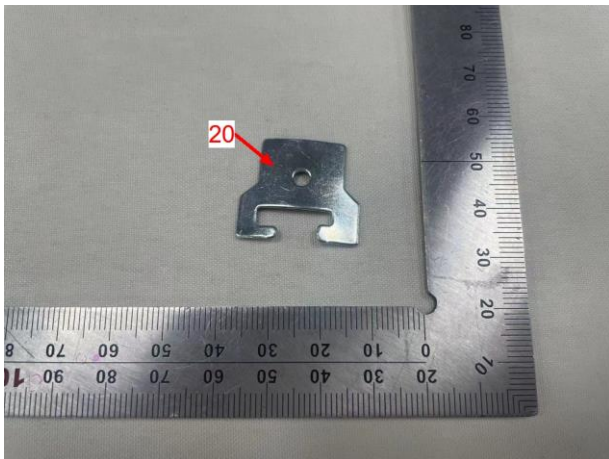
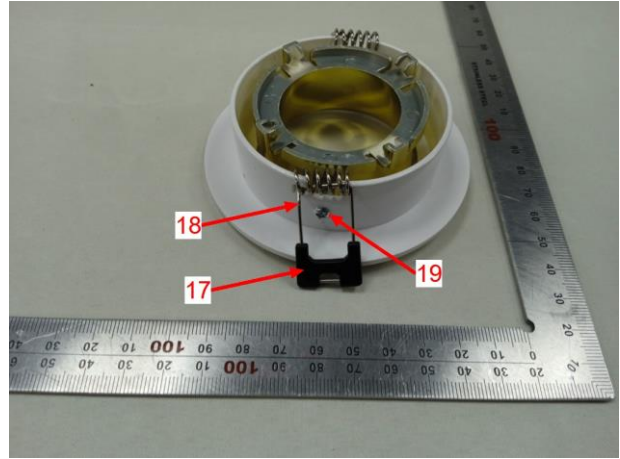
Test No.	Material No.	(%)			
		BBP	DBP	DEHP	DIBP
		RL (%)			
		0.005	0.005	0.005	0.005
T001	M001+M002+M003+M004+M005	< RL	< RL	< RL	< RL
T002	M006+M007+M008+M009+M010	< RL	< RL	< RL	< RL
T003	M011+M012+M013+M014+M015	< RL	< RL	< RL	< RL
T004	M016+M017	< RL	< RL	< RL	< RL

Abbreviation: BBP= Benzylbutyl phthalate
 DBP= Dibutyl phthalate
 DEHP= Bis(2-ethylhexyl) phthalate
 DIBP= Diisobutyl phthalate
 < RL= Not Detected (< Reporting Limit)
 RL = Reporting Limit
 N.A. = Not Applicable
 % = percentage

Test Report No.: 180211973e 001

Page 7 of 7

Sample Photos:



- END -

