



Client Name: GUANGZHOU TIANXIN PHOTOELETRIC CO.,LTD  
Client Address: #15-1, JINGU ROAD SOUTH,XIUTANG,HUADONG TOWN,HUADU DISTRICT  
GUANGZHOU

Sample Name: High power COB LED  
The above sample(s) and information were provided by the client.

SGS Job No.: GZP25-026126  
Sample Receiving Date: Sep 25, 2025  
Testing Period: Sep 25, 2025 ~ Oct 11, 2025  
Test Requested: Select test(s) as requested by the client.  
Test Method(s): Please refer to next page(s).  
Test Result(s): Please refer to next page(s).

| Test Requirement                                                                                                                                                                                                                                                                                                          | Conclusion |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) | Pass       |

Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

  
\_\_\_\_\_  
Kelly Qu  
Approved Signatory





## Test Report

No.: CANEC25024001917

Date: Oct 13, 2025

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### Test Result(s):

#### Test Part Description:

| SN ID | Sample No. | SGS Sample ID           | Description                                              |
|-------|------------|-------------------------|----------------------------------------------------------|
| SN1   | A15        | CAN25-0240019-0001.C015 | Colorless transparent/white/yellow soft material w/ chip |
| SN2   | A16        | CAN25-0240019-0001.C016 | Silvery/copper-colored sheet                             |
| SN3   | A17        | CAN25-0240019-0001.C017 | White liquid                                             |

#### Remarks:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

**EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)**

**Test Method:** With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 and IEC 62321-12:2023, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

| Test Item(s)                              | Limit | Unit(s) | MDL | A15 | A16 |
|-------------------------------------------|-------|---------|-----|-----|-----|
| Lead (Pb)                                 | 1000  | mg/kg   | 2   | ND  | 11  |
| Mercury (Hg)                              | 1000  | mg/kg   | 2   | ND  | ND  |
| Cadmium (Cd)                              | 100   | mg/kg   | 2   | ND  | ND  |
| Hexavalent Chromium (Cr(VI))              | 1000  | mg/kg   | 8   | ND  | ND  |
| Polybrominated biphenyls (PBB)            | 1000  | mg/kg   | -   | ND  | ND  |
| Monobrominated biphenyl (MonoBB)          | -     | mg/kg   | 25  | ND  | ND  |
| Dibrominated biphenyl (DiBB)              | -     | mg/kg   | 25  | ND  | ND  |
| Tribrominated biphenyl (TriBB)            | -     | mg/kg   | 25  | ND  | ND  |
| Tetrabrominated biphenyl (TetraBB)        | -     | mg/kg   | 25  | ND  | ND  |
| Pentabrominated biphenyl (PentaBB)        | -     | mg/kg   | 25  | ND  | ND  |
| Hexabrominated biphenyl (HexaBB)          | -     | mg/kg   | 25  | ND  | ND  |
| Heptabrominated biphenyl (HeptaBB)        | -     | mg/kg   | 25  | ND  | ND  |
| Octabrominated biphenyl (OctaBB)          | -     | mg/kg   | 25  | ND  | ND  |
| Nonabrominated biphenyl (NonaBB)          | -     | mg/kg   | 25  | ND  | ND  |
| Decabrominated biphenyl (DecaBB)          | -     | mg/kg   | 25  | ND  | ND  |
| Polybrominated diphenyl ethers (PBDE)     | 1000  | mg/kg   | -   | ND  | ND  |
| Monobrominated diphenyl ether (MonoBDE)   | -     | mg/kg   | 25  | ND  | ND  |
| Dibrominated diphenyl ether (DiBDE)       | -     | mg/kg   | 25  | ND  | ND  |
| Tribrominated diphenyl ether (TriBDE)     | -     | mg/kg   | 25  | ND  | ND  |
| Tetrabrominated diphenyl ether (TetraBDE) | -     | mg/kg   | 25  | ND  | ND  |
| Pentabrominated diphenyl ether (PentaBDE) | -     | mg/kg   | 25  | ND  | ND  |
| Hexabrominated diphenyl ether (HexaBDE)   | -     | mg/kg   | 25  | ND  | ND  |



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| Test Item(s)                              | Limit | Unit(s) | MDL | A15 | A16 |
|-------------------------------------------|-------|---------|-----|-----|-----|
| Heptabrominated diphenyl ether (HeptaBDE) | -     | mg/kg   | 25  | ND  | ND  |
| Octabrominated diphenyl ether (OctaBDE)   | -     | mg/kg   | 25  | ND  | ND  |
| Nonabrominated diphenyl ether (NonaBDE)   | -     | mg/kg   | 25  | ND  | ND  |
| Decabrominated diphenyl ether (DecaBDE)   | -     | mg/kg   | 25  | ND  | ND  |
| Di-2-Ethyl Hexyl Phthalate (DEHP)         | 1000  | mg/kg   | 50  | ND  | ND  |
| Butyl benzyl phthalate (BBP)              | 1000  | mg/kg   | 50  | ND  | ND  |
| Dibutyl Phthalate (DBP)                   | 1000  | mg/kg   | 50  | ND  | ND  |
| Diisobutyl Phthalate (DIBP)               | 1000  | mg/kg   | 50  | ND  | ND  |

### Notes:

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

**Test Method:** With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 and IEC 62321-12:2023, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

| Test Item(s)                              | Limit | Unit(s) | MDL | A17 |
|-------------------------------------------|-------|---------|-----|-----|
| Lead (Pb)                                 | 1000  | mg/kg   | 2   | ND  |
| Mercury (Hg)                              | 1000  | mg/kg   | 2   | ND  |
| Cadmium (Cd)                              | 100   | mg/kg   | 2   | ND  |
| Hexavalent Chromium (Cr(VI))              | 1000  | mg/kg   | 8   | ND  |
| Polybrominated biphenyls (PBB)            | 1000  | mg/kg   | -   | ND  |
| Monobrominated biphenyl (MonoBB)          | -     | mg/kg   | 25  | ND  |
| Dibrominated biphenyl (DiBB)              | -     | mg/kg   | 25  | ND  |
| Tribrominated biphenyl (TriBB)            | -     | mg/kg   | 25  | ND  |
| Tetrabrominated biphenyl (TetraBB)        | -     | mg/kg   | 25  | ND  |
| Pentabrominated biphenyl (PentaBB)        | -     | mg/kg   | 25  | ND  |
| Hexabrominated biphenyl (HexaBB)          | -     | mg/kg   | 25  | ND  |
| Heptabrominated biphenyl (HeptaBB)        | -     | mg/kg   | 25  | ND  |
| Octabrominated biphenyl (OctaBB)          | -     | mg/kg   | 25  | ND  |
| Nonabrominated biphenyl (NonaBB)          | -     | mg/kg   | 25  | ND  |
| Decabrominated biphenyl (DecaBB)          | -     | mg/kg   | 25  | ND  |
| Polybrominated diphenyl ethers (PBDE)     | 1000  | mg/kg   | -   | ND  |
| Monobrominated diphenyl ether (MonoBDE)   | -     | mg/kg   | 25  | ND  |
| Dibrominated diphenyl ether (DiBDE)       | -     | mg/kg   | 25  | ND  |
| Tribrominated diphenyl ether (TriBDE)     | -     | mg/kg   | 25  | ND  |
| Tetrabrominated diphenyl ether (TetraBDE) | -     | mg/kg   | 25  | ND  |
| Pentabrominated diphenyl ether (PentaBDE) | -     | mg/kg   | 25  | ND  |



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| Test Item(s)                              | Limit | Unit(s) | MDL | A17 |
|-------------------------------------------|-------|---------|-----|-----|
| Hexabrominated diphenyl ether (HexaBDE)   | -     | mg/kg   | 25  | ND  |
| Heptabrominated diphenyl ether (HeptaBDE) | -     | mg/kg   | 25  | ND  |
| Octabrominated diphenyl ether (OctaBDE)   | -     | mg/kg   | 25  | ND  |
| Nonabrominated diphenyl ether (NonaBDE)   | -     | mg/kg   | 25  | ND  |
| Decabrominated diphenyl ether (DecaBDE)   | -     | mg/kg   | 25  | ND  |
| Di-2-Ethyl Hexyl Phthalate (DEHP)         | 1000  | mg/kg   | 50  | ND  |
| Benzyl Butyl Phthalate (BBP)              | 1000  | mg/kg   | 50  | ND  |
| Dibutyl Phthalate (DBP)                   | 1000  | mg/kg   | 50  | ND  |
| Diisobutyl Phthalate (DIBP)               | 1000  | mg/kg   | 50  | ND  |

### Notes:

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

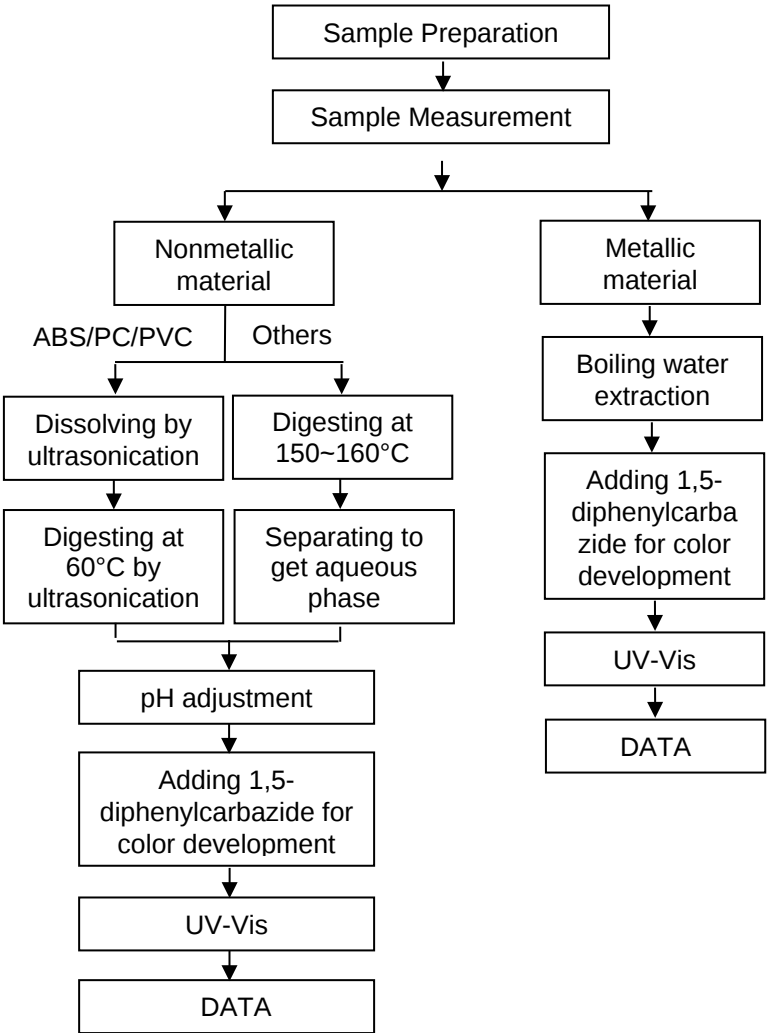
Remark : The result(s) shown in A17 is/are of the total weight of dried sample.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ( $w=0$ ) stated in ILAC-G8:09/2019.



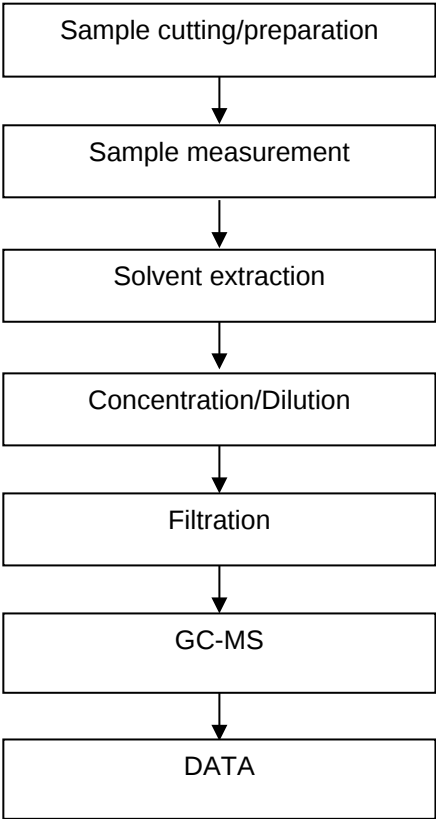


Hexavalent Chromium (Cr(VI)) Testing Flow Chart





**PBB(s)/PBDE(s)/Phthalates Testing Flow Chart**





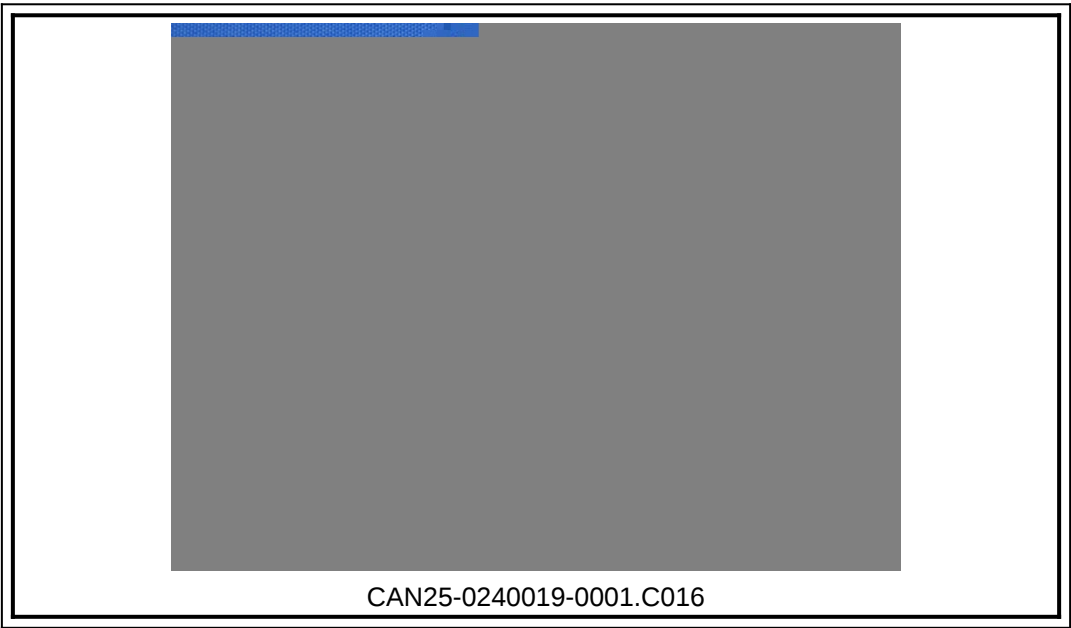
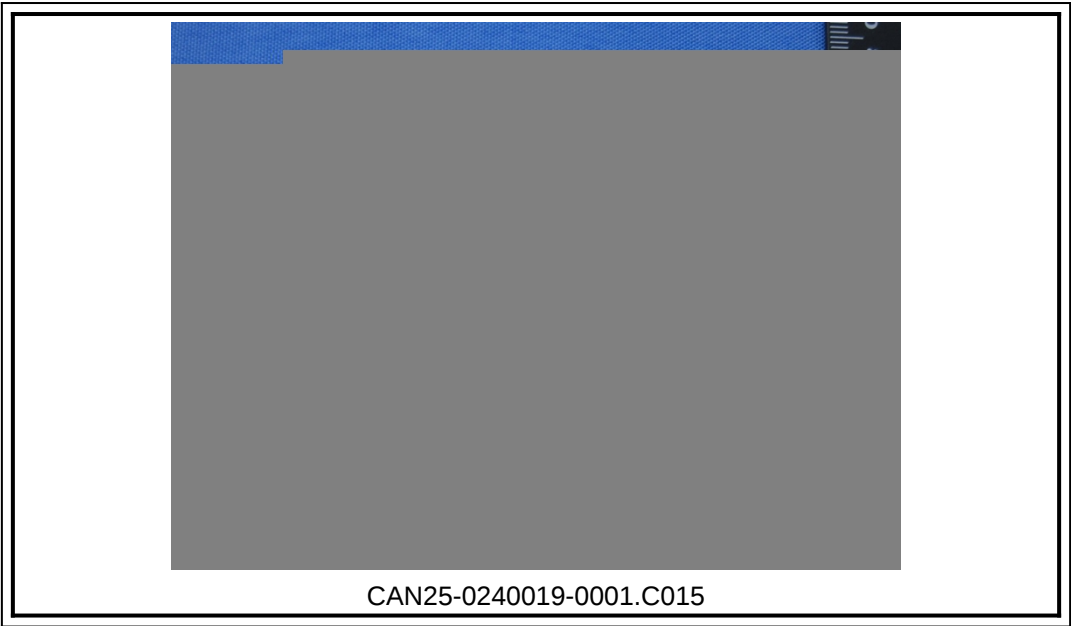
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**Sample Photo:**



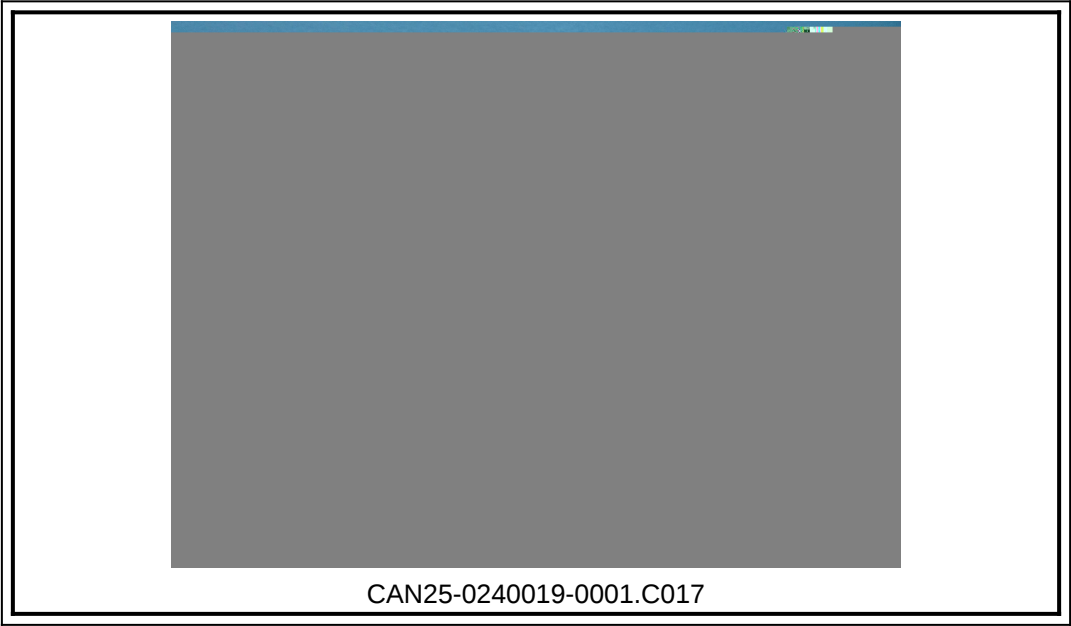


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SGS authenticate the photo on original report only  
\*\*\* End of Report \*\*\*