

## Test Report

No.: SHAEC25019833631

Date: Aug 15, 2025

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Client Name: Suzhou Goodark Electronics Co.,Ltd

Client Address: No.200 Huajin Road,TongAn Economic Development Zone,Suzhou

Sample Name: PDFN 5060 automotive product

Model No.: PDFN 5060 automotive product

Main Substance: Cu,Sn,Epoxy Resin

The above sample(s) and information were provided by the client.

SGS Job No.: SUP25-002863

Sample Receiving Date: Aug 04, 2025

Testing Period: Aug 04, 2025 ~ Aug 15, 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        |
| Halogen                                                                                                                                                                                                                                                                                                                   | See Results |

Signed for and on behalf of  
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

*Carol Luo*

Carol Luo

Approved Signatory

Scan to see the report



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## Test Result(s):

## Test Part Description:

| SN ID | Sample No. | SGS Sample ID           | Description                 |
|-------|------------|-------------------------|-----------------------------|
| SN1   | A25        | SHA25-0198336-0001.C025 | Black body with silvery pin |

## 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 | A25                |
|-------------------------------------------|-------|---------|-----|--------------------|
| Lead (Pb)                                 | 1000  | mg/kg   | 2   | 39364 <sup>▲</sup> |
| 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                 |
| Hexabrominated diphenyl ether (HexaBDE)   | -     | mg/kg   | 25  | ND                 |
| Heptabrominated diphenyl ether (HeptaBDE) | -     | mg/kg   | 25  | ND                 |



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| Test Item(s)                            | Limit | Unit(s) | MDL | A25 |
|-----------------------------------------|-------|---------|-----|-----|
| Octabrominated diphenyl ether (OctaBDE) | -     | mg/kg   | 25  | ND  |
| Nonabrominated diphenyl ether (NonaBDE) | -     | mg/kg   | 25  | ND  |
| Decabrominated diphenyl ether (DecaBDE) | -     | mg/kg   | 25  | ND  |
| Bis(2-ethylhexyl) phthalate (DEHP)      | 1000  | mg/kg   | 50  | ND  |
| Butyl benzyl 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.

### Halogen

**Test Method:** With reference to EN 14582:2016, analysis was performed by IC.

| Test Item(s) | Unit(s) | MDL | A25 |
|--------------|---------|-----|-----|
| Fluorine(F)  | mg/kg   | 20  | ND  |
| Chlorine(Cl) | mg/kg   | 50  | ND  |
| Bromine(Br)  | mg/kg   | 50  | ND  |
| Iodine(I)    | mg/kg   | 50  | ND  |

▲ According to the declaration from the client, Lead (Pb) in No.A25 is exempted by EU RoHS directive 2011/65/EU based on [ANNEX III 7(a)]: Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

More information about exemption can be found via the following link:

<https://rohs.sgsonline.com.cn/PDFLinks/en/RSTS-TP-037%20RoHS%20Exemption%20%28EN%29.pdf>

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.



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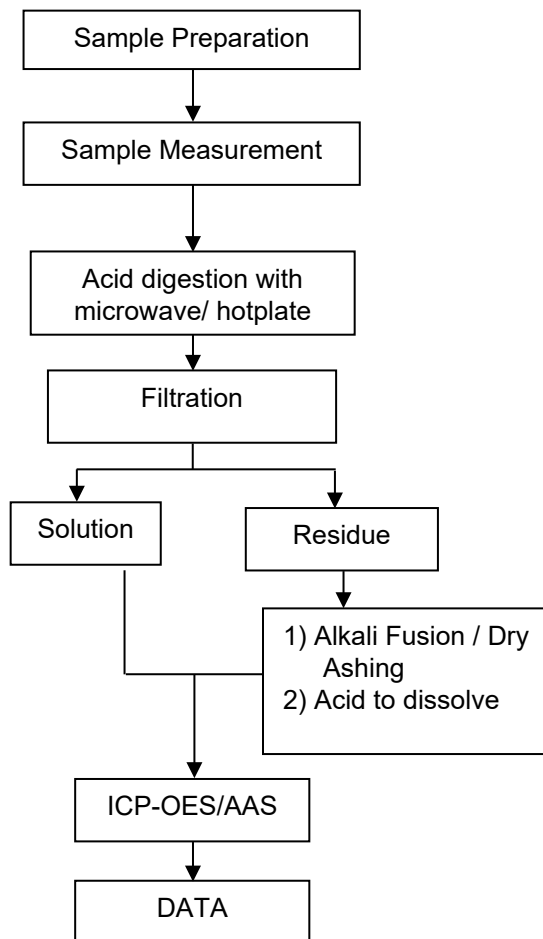
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### Elements Testing Flow Chart

These samples were dissolved totally by pre-conditioning method according to below flow chart.



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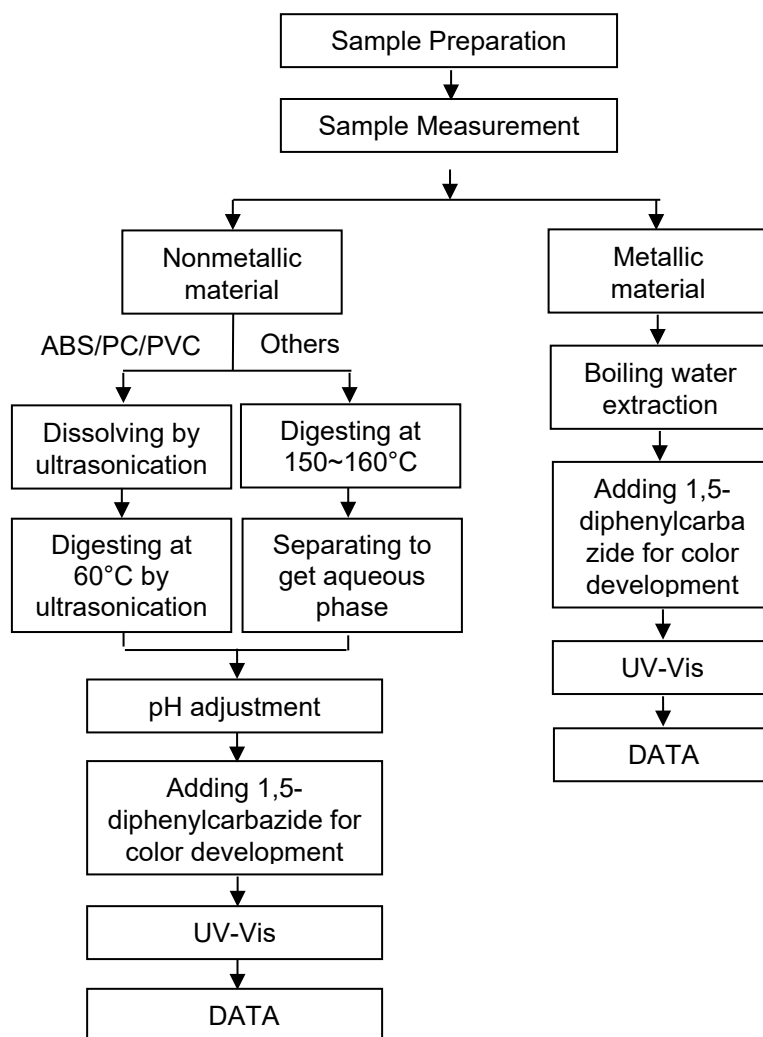
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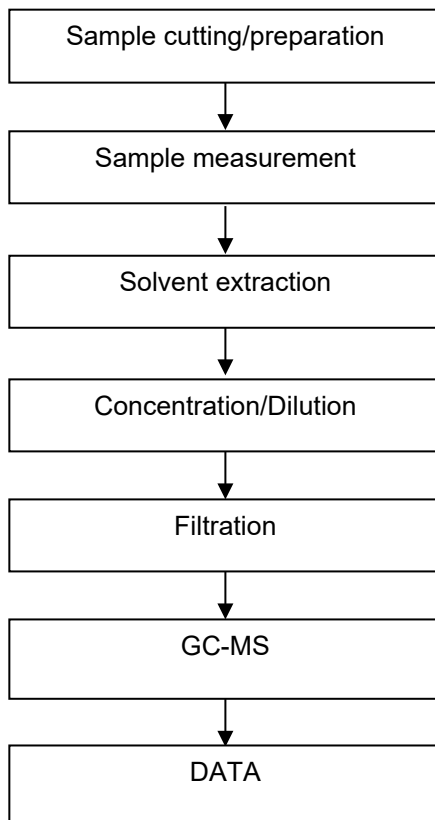
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### Hexavalent Chromium (Cr(VI)) Testing Flow Chart



#### PBB/PBDE/Phthalates Testing Flow Chart



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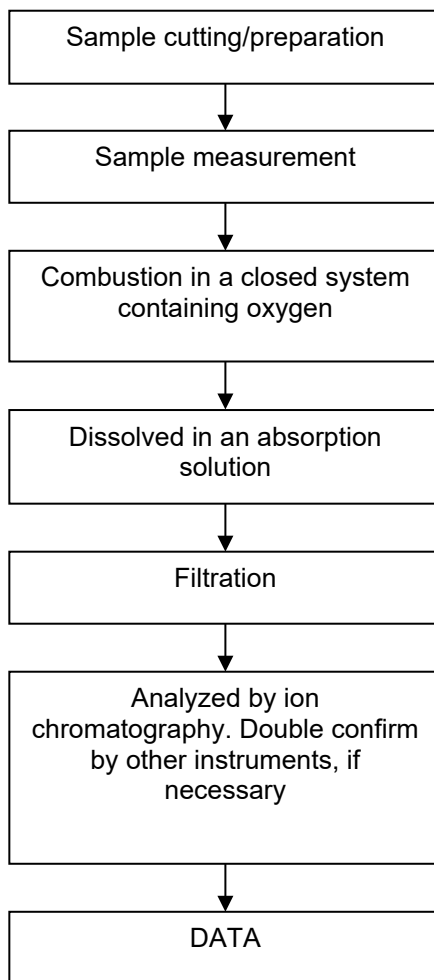
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#### Halogen Testing Flow Chart



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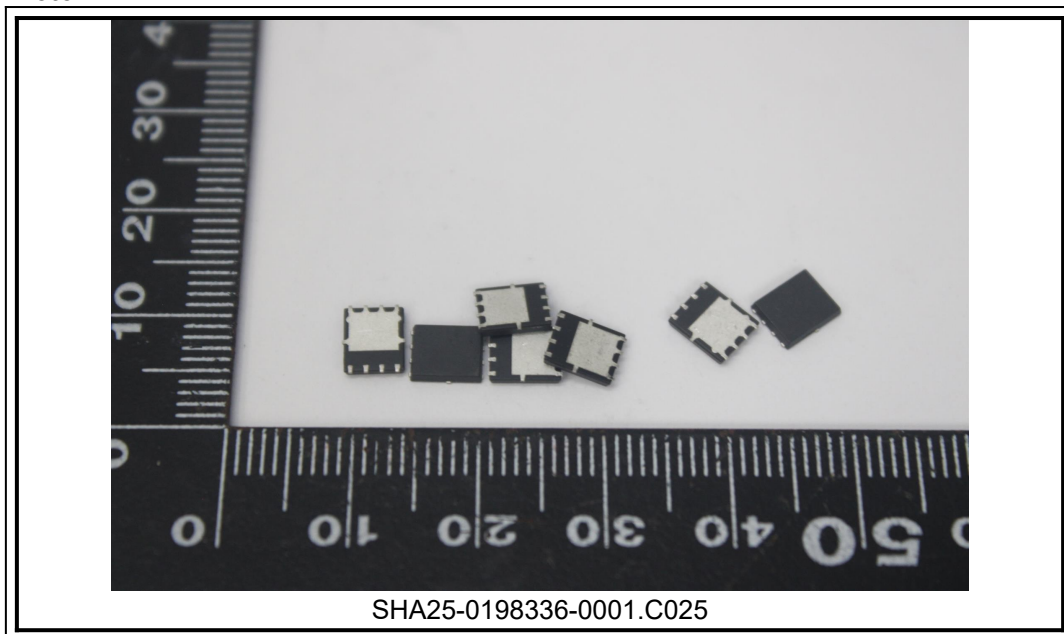
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Sample Photo:



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