

## Test Report



Report No. A2210544944101002

Company Name SHENGYI TECHNOLOGY (SUZHOU) CO.,LTD.  
shown on Report

Address NO.288 XINGLONG ST. SUZHOU INDUSTRIAL PARK, SUZHOU CITY, JIANGSU,  
CHINA

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

Sample Name Copper Clad Laminate  
Part No. SH260  
Sample Received Date Dec. 24, 2021  
Testing Period Dec. 24, 2021 to Dec. 29, 2021

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Beryllium(Be), Antimony(Sb), Hexabromocyclododecane (HBCDD), Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I), Phthalates, Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA) in the submitted sample(s).

Test Method Please refer to the following page(s).

Test Result(s) Please refer to the following page(s).



Tested by Ge Xiaotian

Approved by Chen Kaimin

Chen kaimin  
Lab Manager

Reviewed by Hu Wei

Date Dec. 29, 2021

No. R460051611

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## Test Method

| Test Item(s)   | Test Method   | Measured Equipment(s) |
|--|---|-----------------------|
| Lead (Pb)  | IEC 62321-5:2013  | ICP-OES               |
| Cadmium (Cd)   | IEC 62321-5:2013  | ICP-OES               |
| Mercury (Hg)   | IEC 62321-4:2013+AMD1:2017 CSV  | ICP-OES               |
| Hexavalent Chromium (Cr(VI))   | IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013 | UV-Vis/ICP-OES        |
| Polybrominated Biphenyls (PBBs)  | IEC 62321-6:2015  | GC-MS                 |
| Polybrominated Diphenyl Ethers (PBDEs)   | IEC 62321-6:2015  | GC-MS                 |
| Phthalates (DBP, BBP, DEHP, DIBP)  | IEC 62321-8:2017  | GC-MS                 |
| Beryllium(Be)  | Refer to US EP A 3052:1996 & US EPA 6010D:2018                                | ICP-OES               |
| Antimony(Sb)   | Refer to US EP A 3052:1996 & US EPA 6010D:2018                                | ICP-OES               |
| Hexabromocyclododecane (HBCDD)   | Refer to US EPA 3550C:2007 & US EPA 8270E:2018                                | GC-MS                 |
| Fluorine (F)   | Refer to EN 14582:2016  | IC                    |
| Chlorine (Cl)  | Refer to EN 14582:2016  | IC                    |
| Bromine (Br)   | Refer to EN 14582:2016  | IC                    |
| Iodine (I)   | Refer to EN 14582:2016  | IC                    |
| Perfluorooctanoic Acid(PFOA)   | Refer to DIN CEN/TS 15968:2010  | LC-MS-MS/LC-MS        |
| Perfluorooctane Sulfonates(PFOS)   | Refer to DIN CEN/TS 15968:2010  | LC-MS-MS/LC-MS        |
| Phthalates(DMEP,DCHP,DNHP,DMP,DNP,DPP,DEP,DIDP,DINP,DIPP,DIOP,DNOP,DIHP,DHNUP) | Refer to EN 14372:2004(E)   | GC-MS                 |

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## Test Result(s)

| Tested Item(s)                                | Result | MDL      |
|---|--------|----------|
| Lead(Pb)                                      | N.D.   | 2 mg/kg  |
| Cadmium(Cd)                                   | N.D.   | 2 mg/kg  |
| Mercury(Hg)                                   | N.D.   | 2 mg/kg  |
| Hexavalent Chromium(Cr(VI))                   | N.D.*  | 15 mg/kg |
| Tested Item(s)                                | Result | MDL      |
| <b>Polybrominated Biphenyls (PBBs)</b>        |        |          |
| Monobromobiphenyl                             | N.D.   | 5 mg/kg  |
| Dibromobiphenyl                               | N.D.   | 5 mg/kg  |
| Tribromobiphenyl                              | N.D.   | 5 mg/kg  |
| Tetrabromobiphenyl                            | N.D.   | 5 mg/kg  |
| Pentabromobiphenyl                            | N.D.   | 5 mg/kg  |
| Hexabromobiphenyl                             | N.D.   | 5 mg/kg  |
| Heptabromobiphenyl                            | N.D.   | 5 mg/kg  |
| Octabromobiphenyl                             | N.D.   | 5 mg/kg  |
| Nonabromobiphenyl                             | N.D.   | 5 mg/kg  |
| Decabromobiphenyl                             | N.D.   | 5 mg/kg  |
| Tested Item(s)                                | Result | MDL      |
| <b>Polybrominated Diphenyl Ethers (PBDEs)</b> |        |          |
| Monobromodiphenyl ether                       | N.D.   | 5 mg/kg  |
| Dibromodiphenyl ether                         | N.D.   | 5 mg/kg  |
| Tribromodiphenyl ether                        | N.D.   | 5 mg/kg  |
| Tetrabromodiphenyl ether                      | N.D.   | 5 mg/kg  |
| Pentabromodiphenyl ether                      | N.D.   | 5 mg/kg  |
| Hexabromodiphenyl ether                       | N.D.   | 5 mg/kg  |
| Heptabromodiphenyl ether                      | N.D.   | 5 mg/kg  |
| Octabromodiphenyl ether                       | N.D.   | 5 mg/kg  |
| Nonabromodiphenyl ether                       | N.D.   | 5 mg/kg  |
| Decabromodiphenyl ether                       | N.D.   | 5 mg/kg  |

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**Test Result(s)**

| Tested Item(s)                                     | Result    | MDL      |
|--|-----------|----------|
| <b>Phthalates (DBP, BBP, DEHP, DIBP)</b>           |           |          |
| Dibutyl phthalate(DBP)<br>CAS#:84-74-2             | N.D.      | 50 mg/kg |
| Butyl benzyl phthalate(BBP)<br>CAS#:85-68-7        | N.D.      | 50 mg/kg |
| Di-(2-ethylhexyl) phthalate(DEHP)<br>CAS#:117-81-7 | N.D.      | 50 mg/kg |
| Diisobutyl phthalate(DIBP)<br>CAS#:84-69-5         | N.D.      | 50 mg/kg |
| <b>Tested Item(s)</b>                              |           |          |
| Beryllium(Be)                                      | N.D.      | 10 mg/kg |
| Antimony(Sb)                                       | N.D.      | 10 mg/kg |
| <b>Tested Item(s)</b>                              |           |          |
| Hexabromocyclododecane(HBCDD)                      | N.D.      | 5 mg/kg  |
| <b>Tested Item(s)</b>                              |           |          |
| Fluorine(F)  | 551 mg/kg | 10 mg/kg |
| Chlorine(Cl)                                       | N.D.      | 10 mg/kg |
| Bromine(Br)  | N.D.      | 10 mg/kg |
| Iodine(I)  | N.D.      | 10 mg/kg |

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## Test Result(s)

| Tested Item(s)   | Result        | MDL        |
|--|---------------|------------|
| <b>Phthalates</b>  |               |            |
| Di-n-octyl phthalate(DNOP)<br>CAS#:117-84-0  | N.D.          | 50 mg/kg   |
| Di-isononyl phthalate(DINP)<br>CAS#:28553-12-0,68515-48-0  | N.D.          | 50 mg/kg   |
| Di-iso-decyl phthalate(DIDP)<br>CAS#:26761-40-0,68515-49-1   | N.D.          | 50 mg/kg   |
| Dimethyl phthalate(DMP)<br>CAS#:131-11-3   | N.D.          | 50 mg/kg   |
| Diethyl phthalate(DEP)<br>CAS#:84-66-2   | N.D.          | 50 mg/kg   |
| Dipentyl phthalate(DPP)<br>CAS#:131-18-0   | N.D.          | 50 mg/kg   |
| Dicyclohexyl phthalate(DCHP)<br>CAS#:84-61-7   | N.D.          | 50 mg/kg   |
| Diisooctyl phthalate(DIOP)<br>CAS#:27554-26-3  | N.D.          | 50 mg/kg   |
| Dinonyl phthalate(DNP)<br>CAS#:84-76-4   | N.D.          | 50 mg/kg   |
| Di-n-hexyl phthalate(DNHP)<br>CAS#:84-75-3   | N.D.          | 50 mg/kg   |
| Bis(2-methoxyethyl) phthalate(DMEP)<br>CAS#:117-82-8   | N.D.          | 50 mg/kg   |
| Diisopentylphthalate(DIPP)<br>CAS#:605-50-5  | N.D.          | 50 mg/kg   |
| * <sup>1</sup> 1,2-Benzenedicarboxylic acid,<br>di-(C7-11)-branched and linear alkyl<br>esters(DHNUP)<br>CAS#:68515-42-4 | N.D.          | 100 mg/kg  |
| * <sup>1</sup> 1,2-Benzenedicarboxylic acid,<br>di-C6-8-branched alkyl esters,<br>C7-rich(DIHP)<br>CAS#:71888-89-6       | N.D.          | 100 mg/kg  |
| <b>Tested Item(s)</b>  | <b>Result</b> | <b>MDL</b> |
| Perfluorooctane Sulfonates(PFOS)   | N.D.          | 0.01 mg/kg |
| <b>Tested Item(s)</b>  | <b>Result</b> | <b>MDL</b> |
| Perfluorooctanoic Acid(PFOA)   | N.D.          | 0.01 mg/kg |

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**Sample/Part Description** Cupreous clad laminate

**Remark:** **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Beryllium, Antimony.**

-\*=The result and method detection limit for the sample are corrected according to the matrix spike recovery

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL )

-mg/kg = ppm = parts per million

-\*<sup>1</sup>= In view of the substances are established as UVCB substances(substances of unknown or variable composition, complex reaction products or biological materials) consisting of different and variable constituents, the test results are calculated based on the main constituents of the representative compounds for substances.

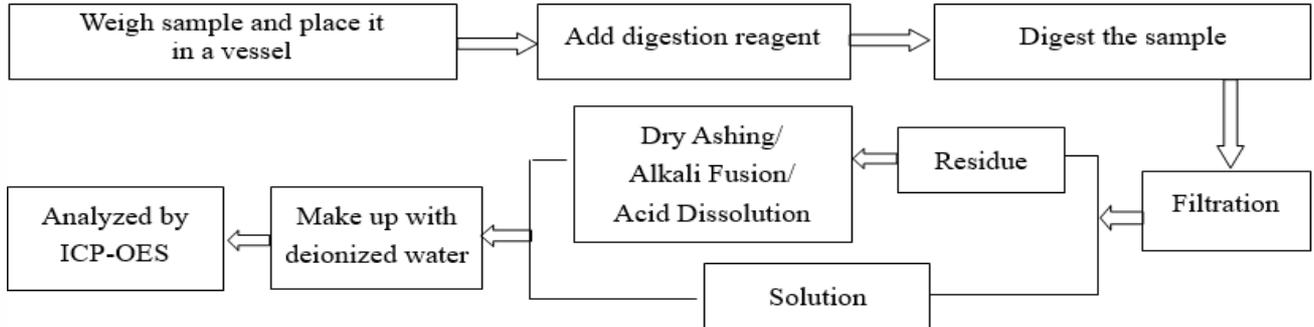
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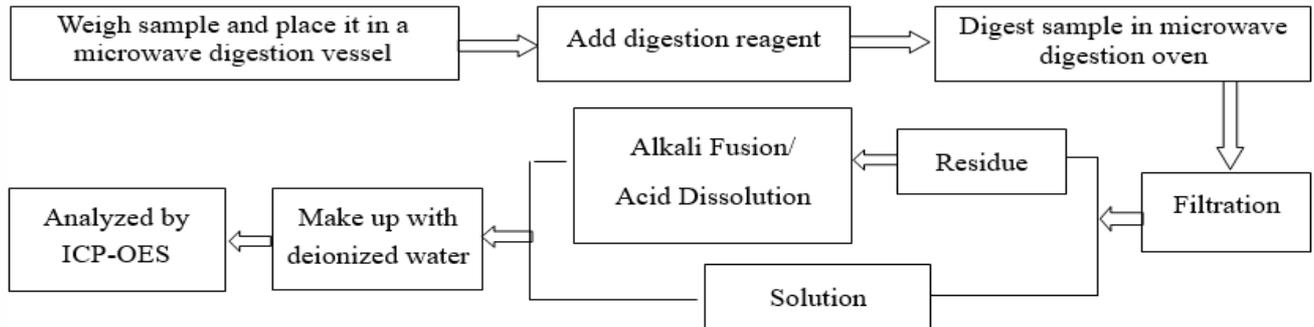
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## Test Process

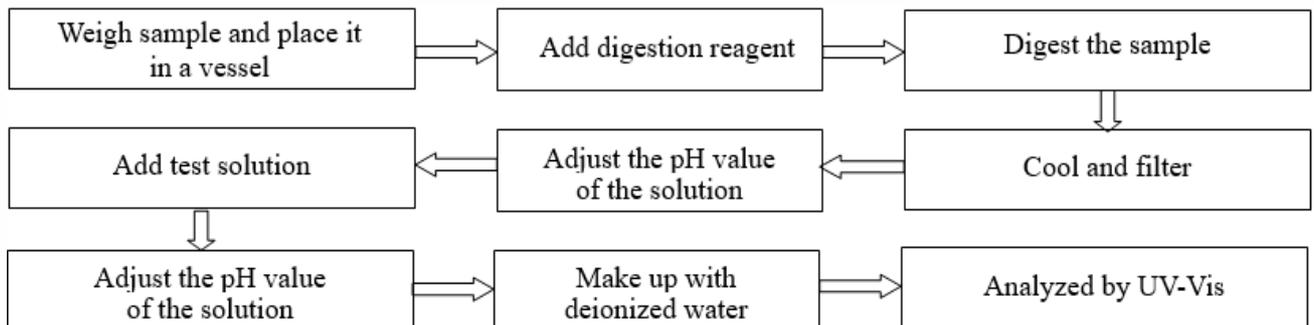
### 1. Lead (Pb), Cadmium (Cd), Chromium (Cr)



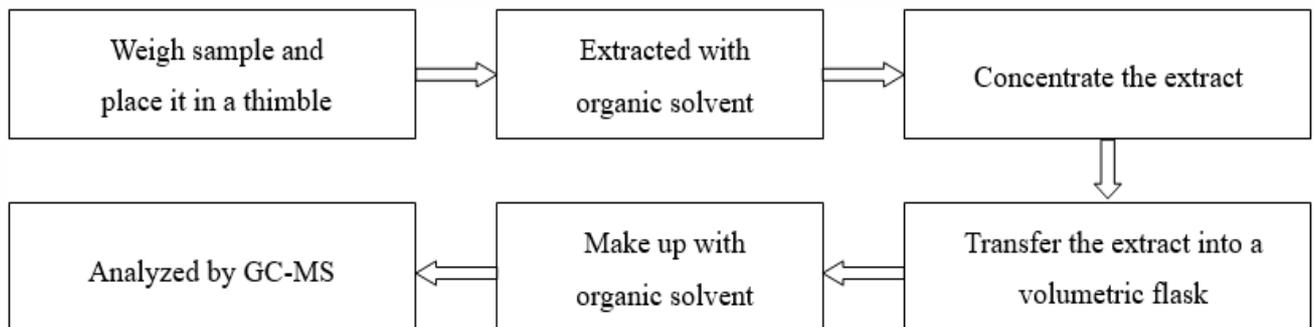
### 2. Mercury (Hg)



### 3. Hexavalent Chromium (Cr(VI))



### 4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)

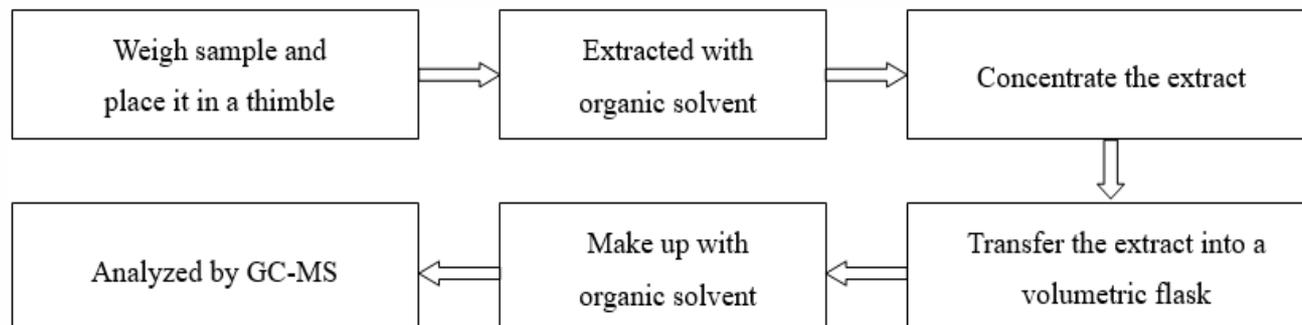


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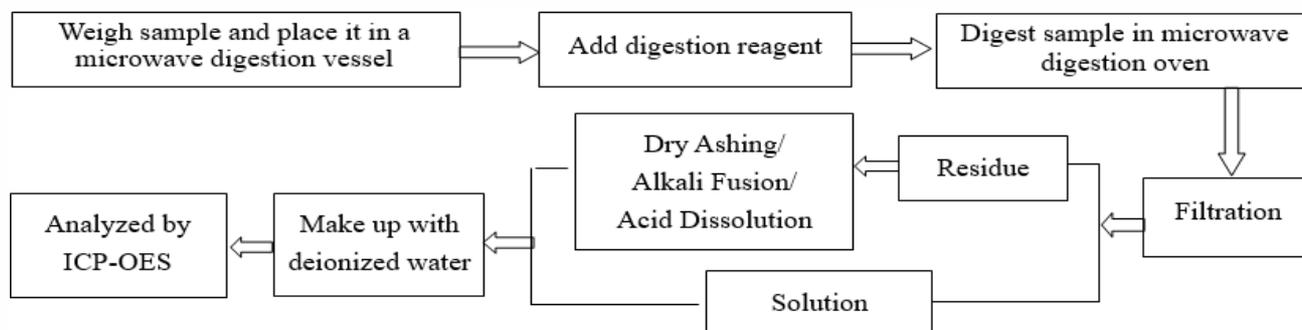
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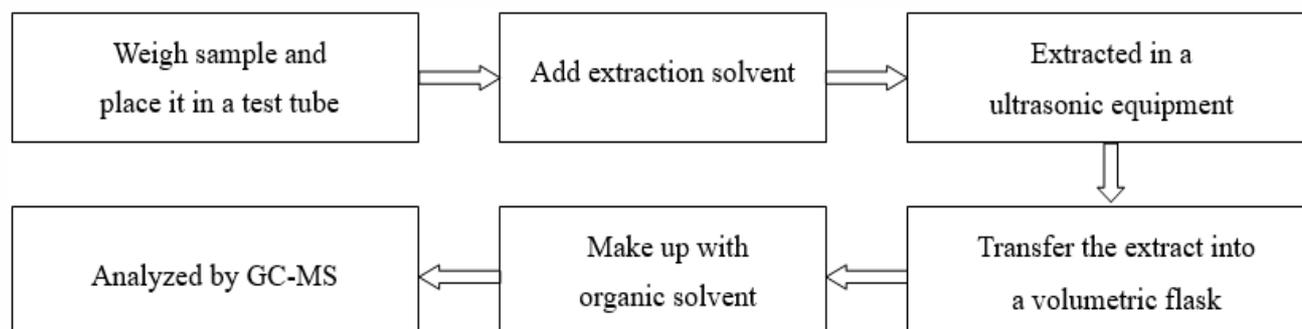
## 5. Phthalates



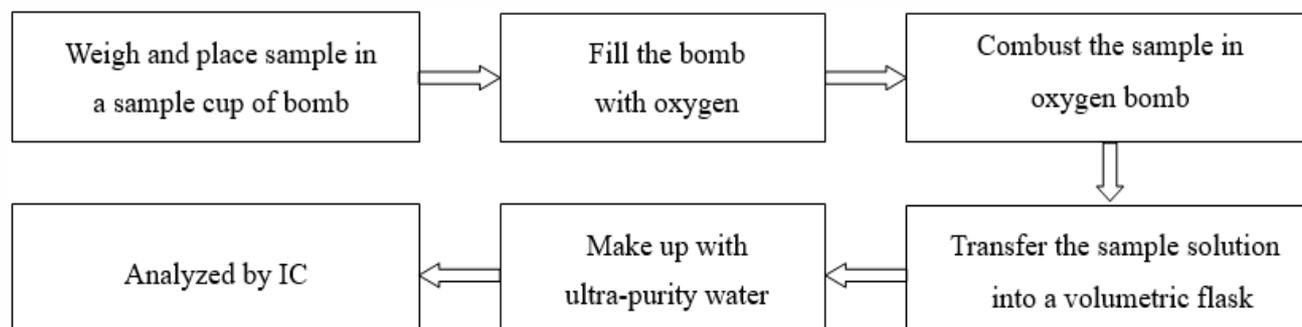
## 6. Beryllium(Be), Antimony(Sb)



## 7. Hexabromocyclododecane (HBCDD)



## 8. Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I)

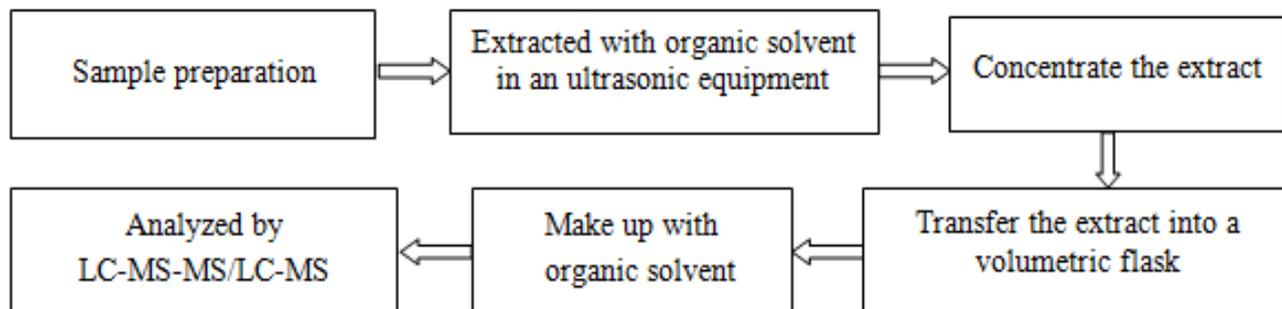


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## 9. Perfluorooctane Sulfonates(PFOS), Perfluorooctanoic Acid(PFOA)

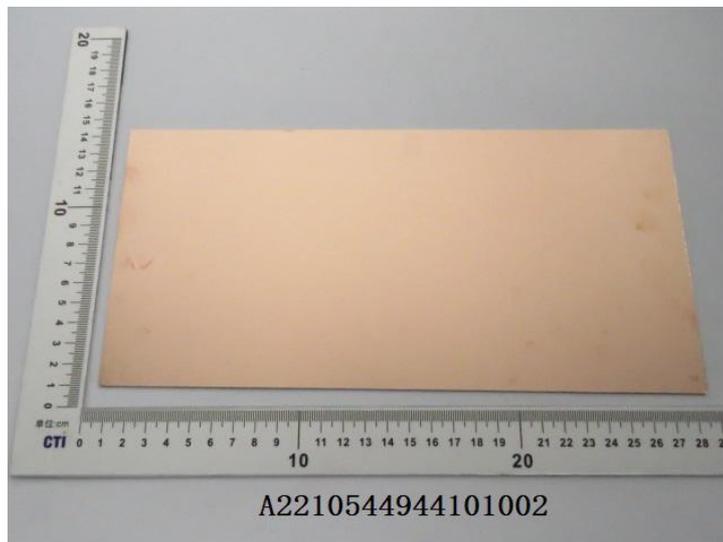


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## Photo(s) of the sample(s)



### Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Without written approval of CTI, this report can't be reproduced except in full;
5. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

\*\*\* End of report \*\*\*

## Appendix

### Client Reference Information

SH260B、SH260M、D7642、D7642B

### Statement:

1. The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.
2. The Appendix Information is/are the supplement(s) for the Report A2210544944101002.