

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



## Test Report

No.: SHAEC25022508709

Date: Sep 03, 2025

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### Test Result(s):

#### Test Part Description:

| SN ID | Sample No. | SGS Sample ID           | Description            |
|-------|------------|-------------------------|------------------------|
| SN1   | A3         | SHA25-0225087-0001.C003 | Colorful silicon wafer |

#### 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, IEC 62321-6:2015 and IEC 62321-8:2017, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

| Test Item(s)                              | Limit | Unit(s) | MDL | A3 |
|-------------------------------------------|-------|---------|-----|----|
| 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 |
| Polybromobiphenyl (PBB)                   | 1000  | mg/kg   | -   | ND |
| Monobrominated biphenyl (MonoBB)          | -     | mg/kg   | 5   | ND |
| Dibrominated biphenyl (DiBB)              | -     | mg/kg   | 5   | ND |
| Tribrominated biphenyl (TriBB)            | -     | mg/kg   | 5   | ND |
| Tetrabrominated biphenyl (TetraBB)        | -     | mg/kg   | 5   | ND |
| Pentabrominated biphenyl (PentaBB)        | -     | mg/kg   | 5   | ND |
| Hexabrominated biphenyl (HexaBB)          | -     | mg/kg   | 5   | ND |
| Heptabrominated biphenyl (HeptaBB)        | -     | mg/kg   | 5   | ND |
| Octabrominated biphenyl (OctaBB)          | -     | mg/kg   | 5   | ND |
| Nonabrominated biphenyl (NonaBB)          | -     | mg/kg   | 5   | ND |
| Decabrominated biphenyl (DecaBB)          | -     | mg/kg   | 5   | ND |
| Polybromodiphenyl ether (PBDE)            | 1000  | mg/kg   | -   | ND |
| Monobrominated diphenyl ether (MonoBDE)   | -     | mg/kg   | 5   | ND |
| Dibrominated diphenyl ether (DiBDE)       | -     | mg/kg   | 5   | ND |
| Tribrominated diphenyl ether (TriBDE)     | -     | mg/kg   | 5   | ND |
| Tetrabrominated diphenyl ether (TetraBDE) | -     | mg/kg   | 5   | ND |
| Pentabrominated diphenyl ether (PentaBDE) | -     | mg/kg   | 5   | ND |
| Hexabrominated diphenyl ether (HexaBDE)   | -     | mg/kg   | 5   | ND |
| Heptabrominated diphenyl ether (HeptaBDE) | -     | mg/kg   | 5   | ND |



| Test Item(s)                               | Limit | Unit(s) | MDL | A3 |
|--------------------------------------------|-------|---------|-----|----|
| Octabrominated diphenyl ether<br>(OctaBDE) | -     |         |     |    |



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| Test Item(s)                                                                         | CAS No.    | Unit(s) | MDL   | A3 |
|--------------------------------------------------------------------------------------|------------|---------|-------|----|
| <b>PFOS, its salts</b>                                                               |            |         |       |    |
| Perfluorooctane sulfonic acid (PFOS), its salts <sup>^</sup>                         | 1763-23-1  | mg/kg   | 0.010 | ND |
| <b>PFOS-related compounds</b>                                                        |            |         |       |    |
| N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA)                                      | 4151-50-2  | mg/kg   | 0.010 | ND |
| N-methylperfluoro-1-octanesulfonamide (N-MeFOSA)                                     | 31506-32-8 | mg/kg   | 0.010 | ND |
| 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol (N-EtFOSE)                          | 1691-99-2  | mg/kg   | 0.010 | ND |
| 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol (N-MeFOSE)                         | 24448-09-7 | mg/kg   | 0.010 | ND |
| Perfluorooctane Sulfonamide (PFOSA), its salts <sup>^</sup>                          | 754-91-6   | mg/kg   | 0.010 | ND |
| Perfluorooctane sulfonamidoacetic Acid (FOSAA), its salts <sup>^</sup>               | 2806-24-8  | mg/kg   | 0.010 | ND |
| N-Methylperfluoro-1-octanesulfonamidoacetic Acid (N-MeFOSAA), its salts <sup>^</sup> | 2355-31-9  | mg/kg   | 0.010 | ND |
| N-Ethylperfluorooctane sulfonamidoacetic Acid (N-EtFOSAA), its salts <sup>^</sup>    | 2991-50-6  | mg/kg   | 0.010 | ND |
| Sum of PFOS-related compounds                                                        | -          | mg/kg   | -     | ND |
| <b>PFOA, its salts</b>                                                               |            |         |       |    |
| Perfluorooctanoic acid (PFOA), its salts <sup>^</sup>                                | 335-67-1   | mg/kg   | 0.010 | ND |

### Notes:

(1) <sup>^</sup>=Substances refer to its salts/derivative listed in below table.

| Substances Name                                                                                                                                                                              | CAS No.     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>PFOS, its salts &amp; derivatives</b>                                                                                                                                                     |             |
| Perfluorooctane sulfonic acid (PFOS)                                                                                                                                                         | 1763-23-1   |
| Potassium Perfluorooctanesulfonate (PFOS-K)                                                                                                                                                  | 2795-39-3   |
| Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)                                                                                                                                         | 29457-72-5  |
| Sodium perfluorooctanesulfonate (PFOS-Na)                                                                                                                                                    | 4021-47-0   |
| Ammonium perfluorooctanesulfonate (PFOS-NH <sub>4</sub> )                                                                                                                                    | 29081-56-9  |
| Perfluorooctane sulfonate diethanolamine salt (PFOS-NH <sub>2</sub> (C <sub>2</sub> H <sub>4</sub> OH) <sub>2</sub> )                                                                        | 70225-14-8  |
| Perfluorooctanesulfonic acid, tetraethylammonium salt (PFOS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> )                                                                                 | 56773-42-3  |
| N-decyl-N,N-dimethyldecan-1-aminium 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctane-1-sulfonate (PFOS-N(C <sub>10</sub> H <sub>21</sub> ) <sub>2</sub> (CH <sub>3</sub> ) <sub>2</sub> ) | 251099-16-8 |
| TetrabutylAmmonium perfluorooctanesulfonate (PFOS-N(C <sub>4</sub> H <sub>9</sub> ) <sub>4</sub> )                                                                                           | 111873-33-7 |
| Perfluorooctane Sulfonyl fluoride (PFOS-F)                                                                                                                                                   | 307-35-7    |
| Magnesium bis(heptafluorooctanesulphonate) (PFOS-Mg)                                                                                                                                         | 91036-71-4  |
| Piperidine 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctanesulfonate                                                                                                                      | 71463-74-6  |
| Perfluorooctanesulfonate                                                                                                                                                                     | 45298-90-6  |
| Triethylammonium perfluorooctane sulfonate (PFOS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>3</sub> )                                                                                            | 54439-46-2  |
| Tetramethylammonium perfluorooctane sulfonate (PFOS-N(CH <sub>3</sub> ) <sub>4</sub> )                                                                                                       | 56773-44-5  |





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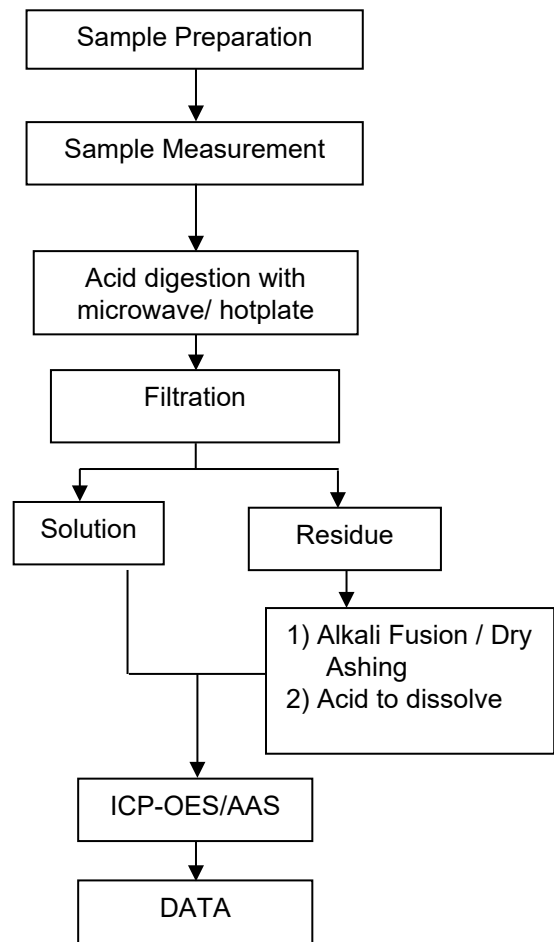
|                                                                                                              |              |
|--------------------------------------------------------------------------------------------------------------|--------------|
| Lithium perfluorooctanoate (PFOA-Li)                                                                         | 17125-58-5   |
| Cobalt perfluorooctanoate (PFOA-Co)                                                                          | 35965-01-6   |
| Cesium perfluorooctanoate (PFOA-Cs)                                                                          | 17125-60-9   |
| Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+) (PFOA-Cr(3+))                    | 68141-02-6   |
| Pentadecafluorooctanoic acid--piperazine (2/1) (PFOA-NH(C <sub>4</sub> H <sub>10</sub> N))                   | 423-52-9     |
| Pentadecafluorooctanoate (anion)                                                                             | 45285-51-6   |
| Perfluorooctanoic Anhydride                                                                                  | 33496-48-9   |
| N,N,N-Triethylethanaminium perfluorooctanoate                                                                | 98241-25-9   |
| Perfluorooctanoate N,N,N-Trimethylmethanaminium                                                              | 32609-65-7   |
| Tetrapropylammonium perfluorooctanoate                                                                       | 277749-00-5  |
| Potassium pentadecafluorooctanoate--water (1/1/2) (PFOA-K(H <sub>2</sub> O) <sub>2</sub> )                   | 98065-31-7   |
| Perfluorooctanoic acid compd. with ethanamine (1:1) (PFOA-C <sub>2</sub> H <sub>7</sub> N)                   | 1376936-03-6 |
| Pentadecafluorooctanoic acid--pyridine (1/1) (PFOA-C <sub>5</sub> H <sub>5</sub> N)                          | 95658-47-2   |
| pentadecafluorooctanoic acid- 1-phenylpiperazine(1:1) (PFOA-C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> ) | 1514-68-7    |
| N,N,N-Trimethyloctan-1-aminium pentadecafluorooctanoate (PFOA-C <sub>11</sub> H <sub>26</sub> N)             | 927835-01-6  |
| Pentadecafluorooctanoyl chloride (PFOA-Cl)                                                                   | 335-64-8     |

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.



Elements Testing Flow Chart

Name of the person who made testing: Meria Jin/Sielina Song  
Name of the person in charge of testing: John Cheng  
These samples were dissolved totally by pre-conditioning method according to below flow chart.





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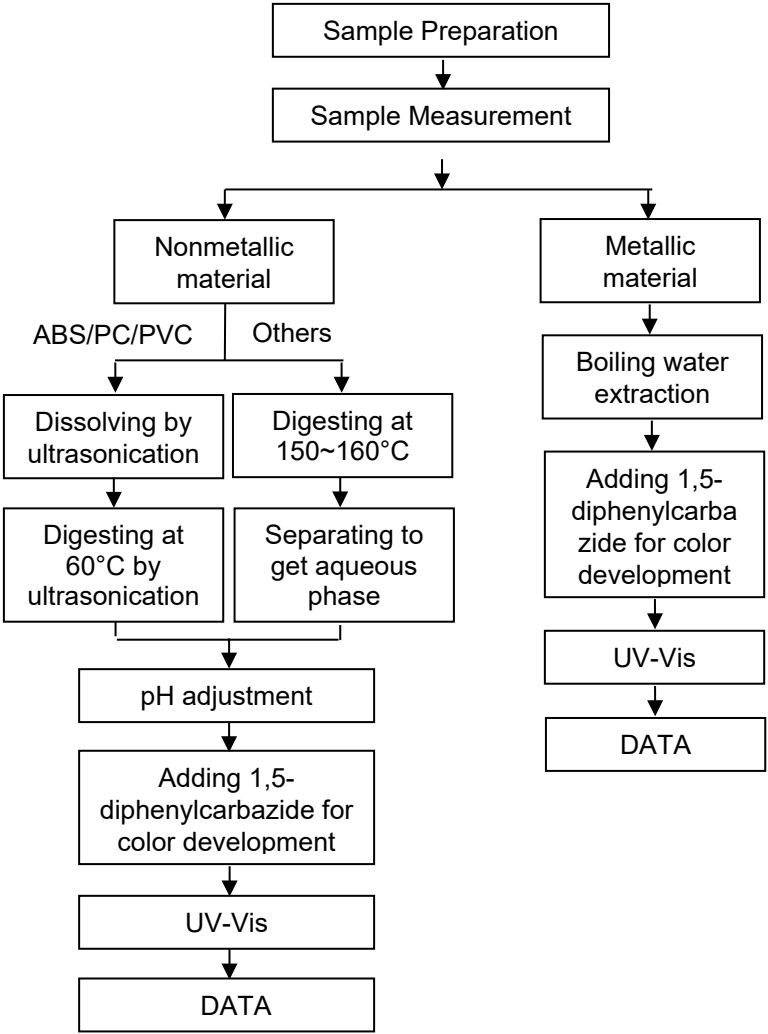
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ATTACHMENTS

Hexavalent Chromium (Cr(VI)) Testing Flow Chart

Name of the person who made testing: Alex Wang  
Name of the person in charge of testing: Xiaolong Yang





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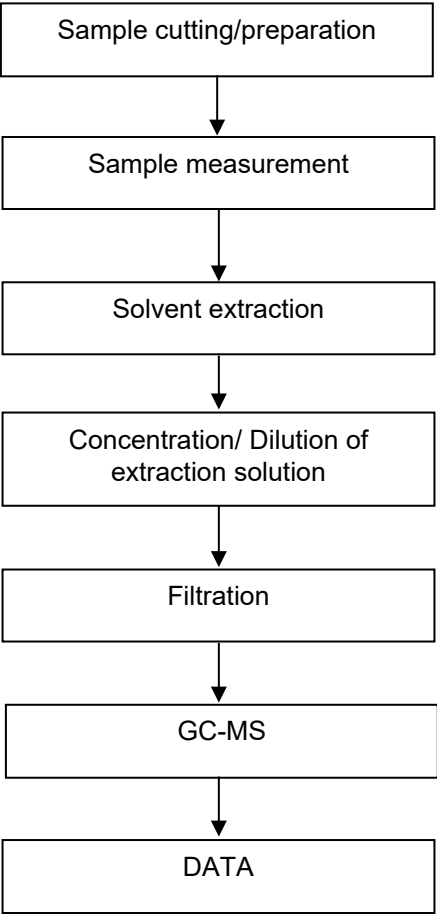
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PBB/PBDE Testing Flow Chart

Name of the person who made testing: Gary Xu  
Name of the person in charge of testing: Carol Cui





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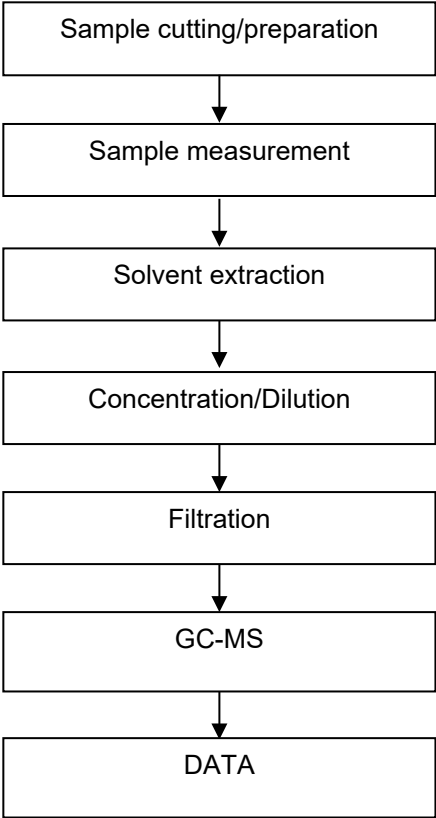
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Phthalates Testing Flow Chart

Name of the person who made testing: xiaoqiang zhang  
Name of the person in charge of testing: Carol Cui





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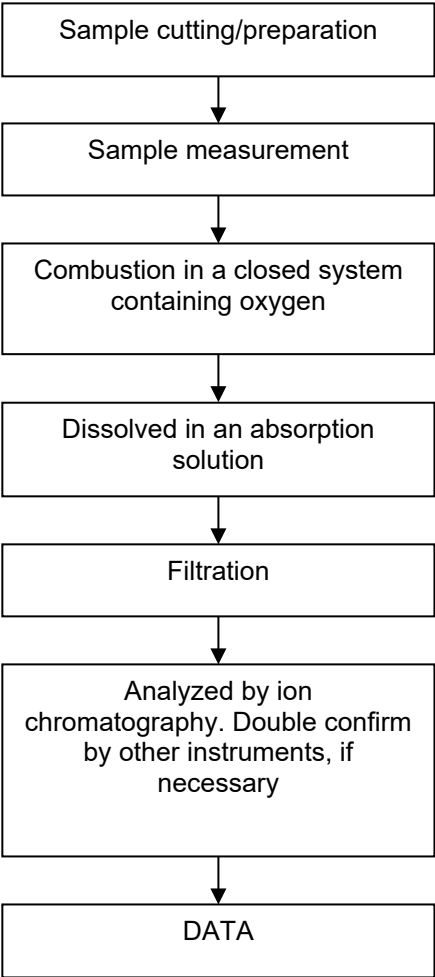
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Halogen Testing Flow Chart

Name of the person who made testing: Andy Zhang  
Name of the person in charge of testing: Jinjing Sun





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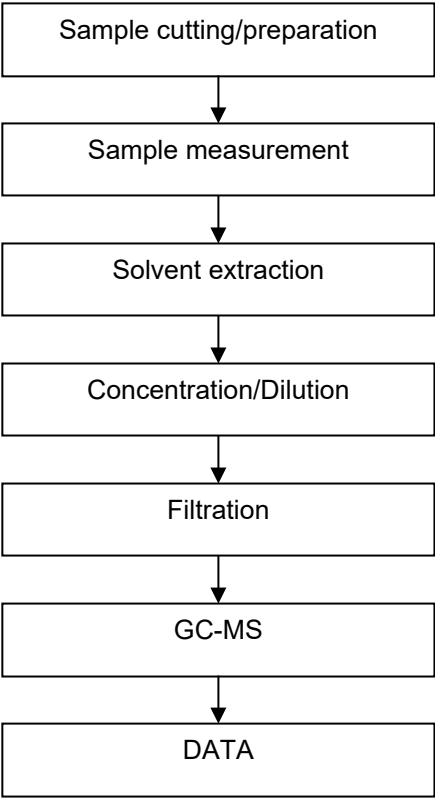
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HBCDD Testing Flow Chart

Name of the person who made testing: Gary Xu  
Name of the person in charge of testing: Carol Cui





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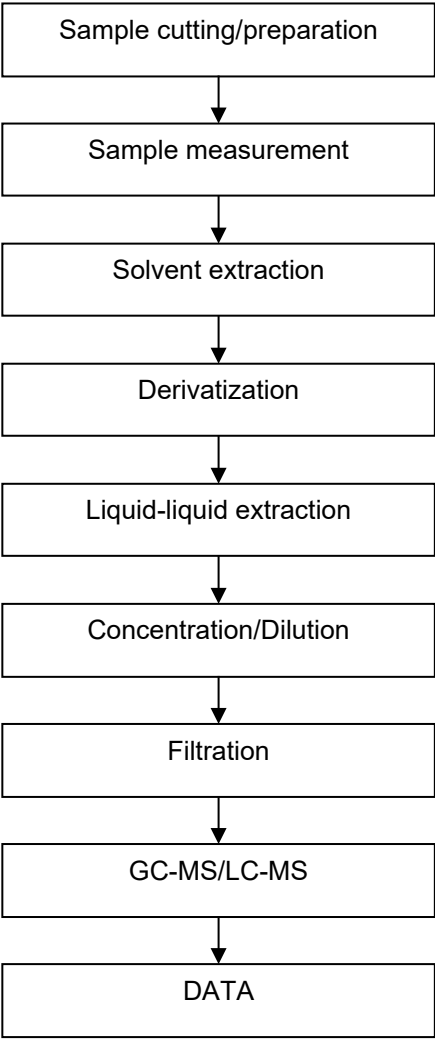
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**ATTACHMENTS**

**TBBP-A Testing Flow Chart**

Name of the person who made testing: Gary Xu  
Name of the person in charge of testing: Carol Cui





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**PFASs/ PFOS/PFOA Testing Flow Chart**



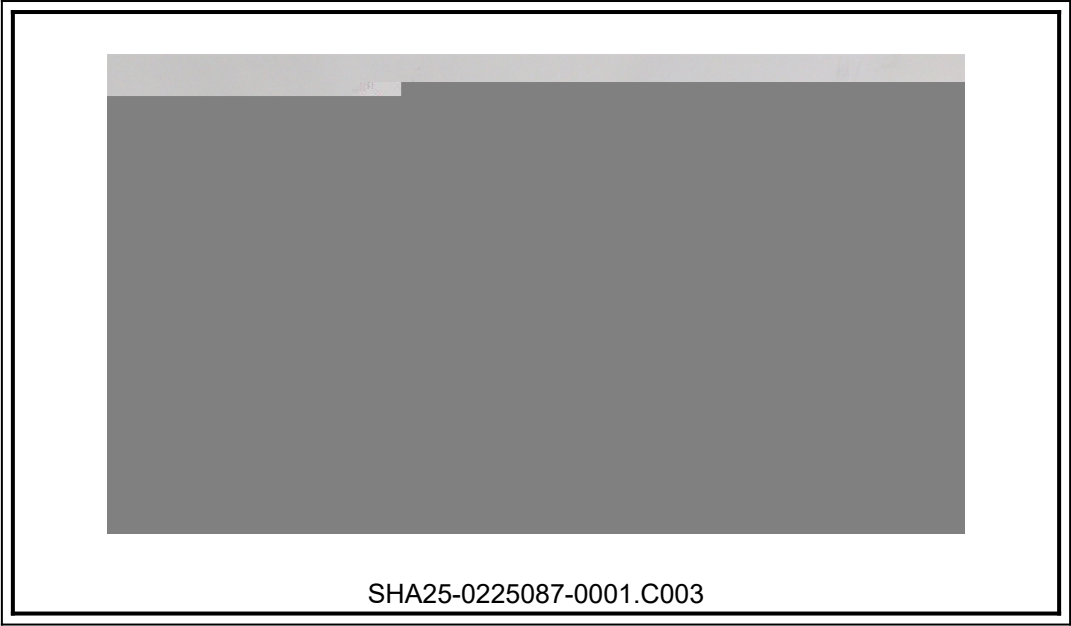
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**Sample Photo:**



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