# TEST REPORT

| | | |
|---|---|---|
| **Applicant** | : | **Sunbooster GmbH** |
| **Address** | : | **Grazer Strasse 27, 8045 Graz, Austria** |

**Report on the submitted samples said to be:**

| | | |
|---|---|---|
| **Sample Name(s)** | : | **Sunbooster vertical 2.5m** |
| **Trade Mark** | : | **Sunbooster** |
| **Tested Model No.** | : | **31.92V/79W** |
| **Sample Received Date** | : | **May 22, 2025** |
| **Testing Period** | : | **May 22, 2025 ~ June 03, 2025** |
| **Date of Report** | : | **June 03, 2025** |
| **Testing Location** | : | **901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China** |
| **Results** | : | **Please refer to next page(s).** |

| TEST REQUEST | CONCLUSION |
|---|---|
| As specified by client, based on the performed tests on submitted sample, the result of Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), PBBs, PBDEs, Dibutyl Phthalate(DBP), Butylbenzyl Phthalate(BBP), Di-2-ethylhexyl Phthalate(DEHP) and Diisobutyl phthalate(DIBP) content comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863. | **PASS** |

Signed for and on behalf of LCS

LCS TESTING LABORATORY * APPROVED *

Terry Luo



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

**A. EU RoHS Directive 2011/65/EU and its amendment directives**

Test method: Refer to IEC 62321-3-1:2013, Screening by X-ray Fluorescence Spectroscopy (XRF).

Test result(s):

| Sample No. | Sample Description | Screening Result(s) | | | | | | Date of sample submission/ Resubmission |
|---|---|---|---|---|---|---|---|---|
| | | Cd | Pb | Hg | Cr▼ | Br▼ | | |
| | | | | | | PBBs | PBDEs | |
| 1 | Transparent soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 2 | Blue hard plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 3 | Silver metal | BL | BL | BL | BL | / | / | 2025-05-22 |
| 4 | Black screw | BL | BL | BL | BL | / | / | 2025-05-22 |
| 5 | Black hard plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 6 | Transparent glue | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 7 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 8 | Solder | BL | BL | BL | BL | / | / | 2025-05-22 |
| 9 | Silver metal | BL | BL | BL | BL | / | / | 2025-05-22 |
| 10 | Black hard plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 11 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 12 | Silver metal | BL | BL | BL | BL | / | / | 2025-05-22 |
| 13 | Silver-colored wire core | BL | BL | BL | BL | / | / | 2025-05-22 |
| 14 | Black wire insulation | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 15 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 16 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 17 | Red soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 18 | Copper-colored metal | BL | BL | BL | BL | / | / | 2025-05-22 |
| 19 | Silver-colored wire core | BL | BL | BL | BL | / | / | 2025-05-22 |
| 20 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 21 | Silver metal | BL | BL | BL | BL | / | / | 2025-05-22 |
| 22 | Black wire insulation | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 23 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 24 | Black hard plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 25 | Silver metal | BL | BL | BL | BL | / | / | 2025-05-22 |
| 26 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 27 | White soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 28 | Silver-colored wire core | BL | BL | BL | BL | / | / | 2025-05-22 |
| 29 | Black hard plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

| Sample No. | Sample Description | Screening Result(s) | | | | | | Date of sample submission/ Resubmission |
|---|---|---|---|---|---|---|---|---|
| | | Cd | Pb | Hg | Cr▼ | Br▼ | | |
| | | | | | | PBBs | PBDEs | |
| 30 | Red soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 31 | Black hard plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 32 | Silver metal | BL | BL | BL | BL | / | / | 2025-05-22 |
| 33 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 34 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 35 | Black hard plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 36 | Black hard plastic | BL | BL | BL | BL | BL | BL | 2025-05-22 |
| 37 | Silver metal | BL | BL | BL | BL | / | / | 2025-05-22 |
| 38 | Silver-colored wire core | BL | BL | BL | BL | / | / | 2025-05-22 |

Note:

1. Results were obtained by XRF for primary screening, and further chemical testing by ICP(for Cd, Pb, Hg), UV-Vis(for Cr(VI)) and GC-MS(for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013(Unit: mg/kg).

| Element | Polymers | Metals | Composite material |
|---|---|---|---|
| Cd | BL≤(70-3σ)<X<(130+3σ)≤OL | BL≤(70-3σ)<X<(130+3σ)≤OL | LOD<X<(150+3σ)≤OL |
| Pb | BL≤(700-3σ)<X<(1300+3σ)≤OL | BL≤(700-3σ)<X<(1300+3σ)≤OL | BL≤(500-3σ)<X<(1500+3σ)≤OL |
| Hg | BL≤(700-3σ)<X<(1300+3σ)≤OL | BL≤(700-3σ)<X<(1300+3σ)≤OL | BL≤(500-3σ)<X<(1500+3σ)≤OL |
| Cr | BL≤(700-3σ)<X | BL≤(700-3σ)<X | BL≤(500-3σ)<X |
| Br | BL≤(300-3σ)<X | N/A | BL≤(250-3σ)<X |

Remark:

- BL= Below Limit
- OL= Over Limit
- X= The range of needing to do further testing
- 3σ= The reproducibility of analytical instruments
- N/A= Not applicable
- LOD= Detection limit

2. The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.
3. The maximum permissible limit is quoted from the document RoHS Directive 2011/65/EU with amendment (EU) 2015/863.
4. ▼=For restricted substances PBBs and PBDEs, the results show the total Br content, the restricted substance was Cr(VI), and the results showed the total Cr content.



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

| RoHS Restricted Substances | Maximum Concentration Value (mg/kg) (by weight in homogenous materials) |
|---|---|
| Cadmium(Cd) | 100 |
| Lead(Pb) | 1000 |
| Mercury(Hg) | 1000 |
| Hexavalent Chromium(Cr(VI)) | 1000 |
| Polybrominated biphenyls(PBBs) | 1000 |
| Polybrominated diphenylethers(PBDEs) | 1000 |
| Dibutyl Phthalate(DBP) | 1000 |
| Butylbenzyl Phthalate(BBP) | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) | 1000 |
| Diisobutyl phthalate(DIBP) | 1000 |

Disclaimers:

This XRF Screening report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF screening report is sufficient for its/his/her purposes. The result shown in this XRF screening report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis are required to obtain quantitative data.



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

**B. EU RoHS Directive 2011/65/EU with amendment (EU) 2015/863 on DBP, BBP, DEHP & DIBP content**

Test method:

Phthalates(DBP, BBP, DEHP &DIBP) Content:

Refer to IEC 62321-8:2017, by solvent extraction and analysis was performed by gas chromatography-mass spectrometer (GC-MS).

Test result(s):

**1) Phthalates(DBP, BBP, DEHP &DIBP)**

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|---|---|---|
| | | 22 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|---|---|---|
| | | 1+2+5+6+7+10 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|---|---|---|
| | | 11+14+15+16+17+20 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|---|---|---|
| | | 23+24+26+27+29+30 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|---|---|---|
| | | 31+33+34+35+36 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |

Note:

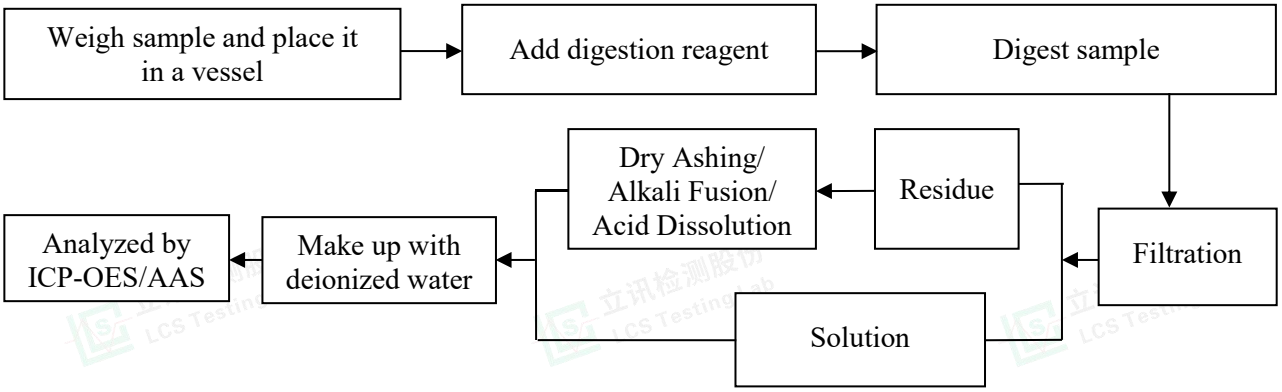
- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg= milligram per kilogram=ppm
- According to customer's requirement, only the appointed materials have been tested.



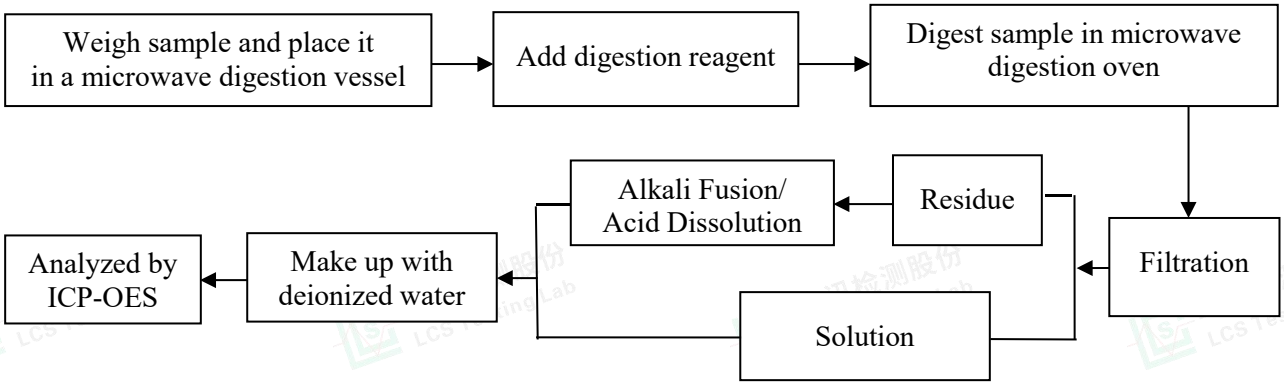
Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

# Test Process

1. Lead(Pb) & Cadmium(Cd): IEC 62321-5:2013

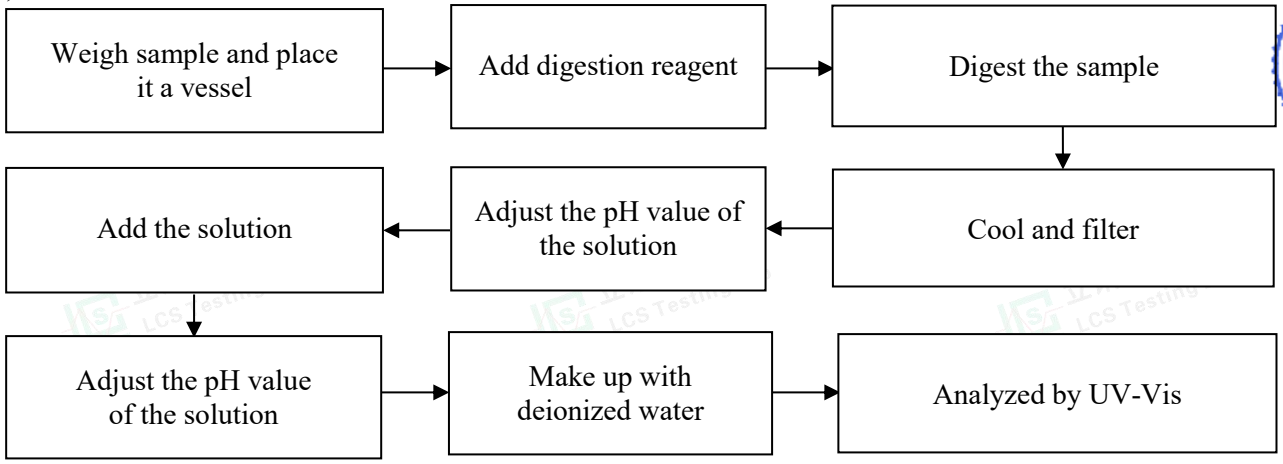



2. Mercury(Hg): IEC 62321-4:2013+AMD1:2017 CSV




3. Hexavalent Chromium(Cr(VI))

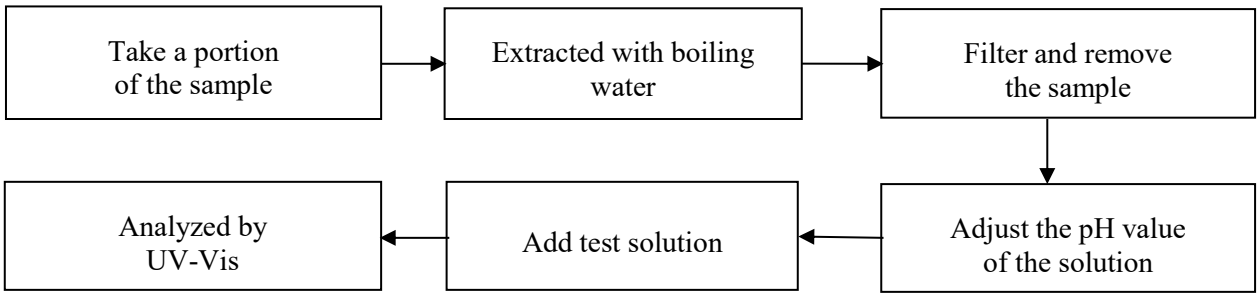
1) IEC 62321-7-2:2017



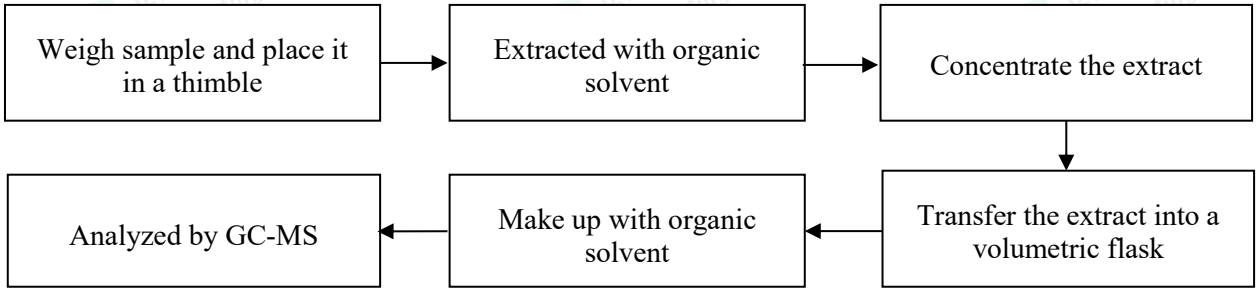



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

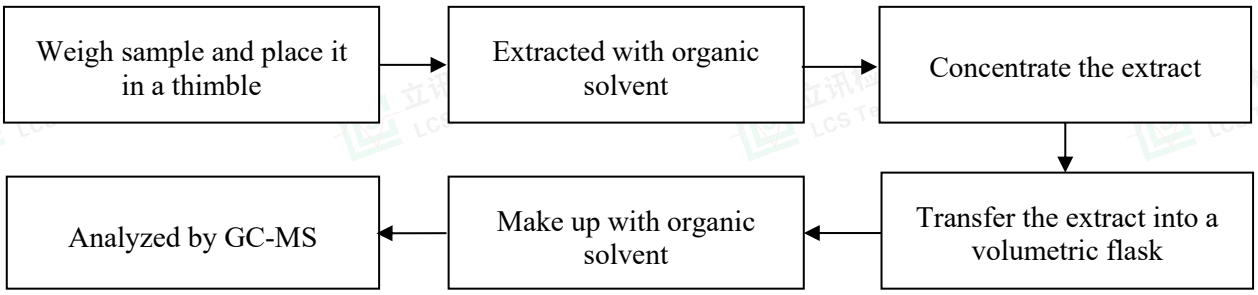
2) IEC 62321-7-1:2015




4. Polybrominated Biphenyls(PBBs) & Polybrominated Diphenyl Ethers(PBDEs) : IEC 62321-6:2015



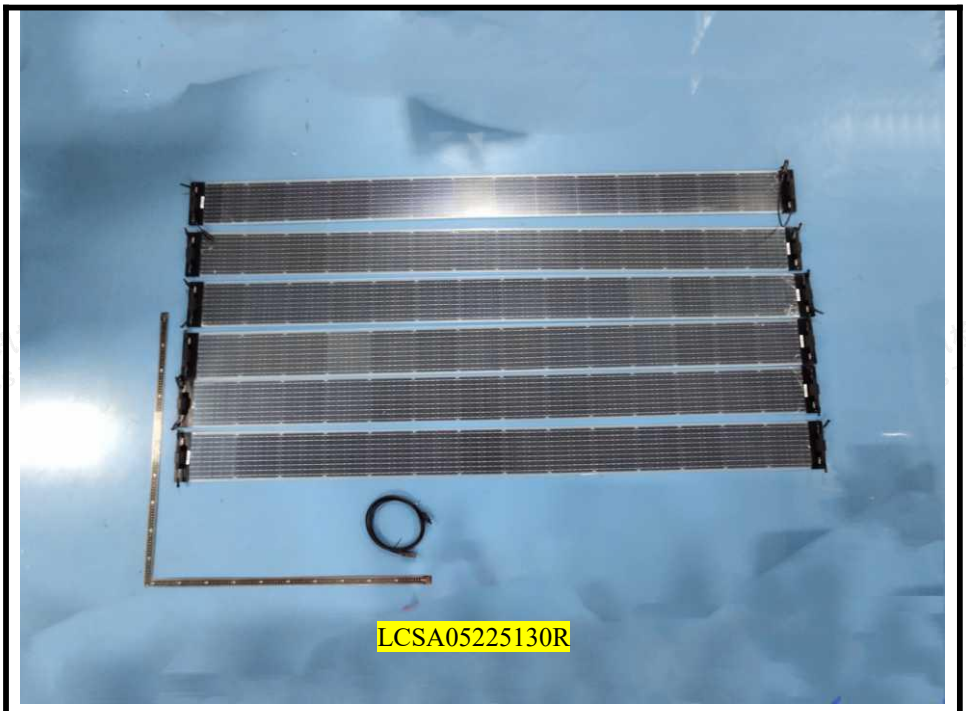

5. Phthalates(DBP, BBP, DEHP & DIBP) : IEC 62321-8:2017

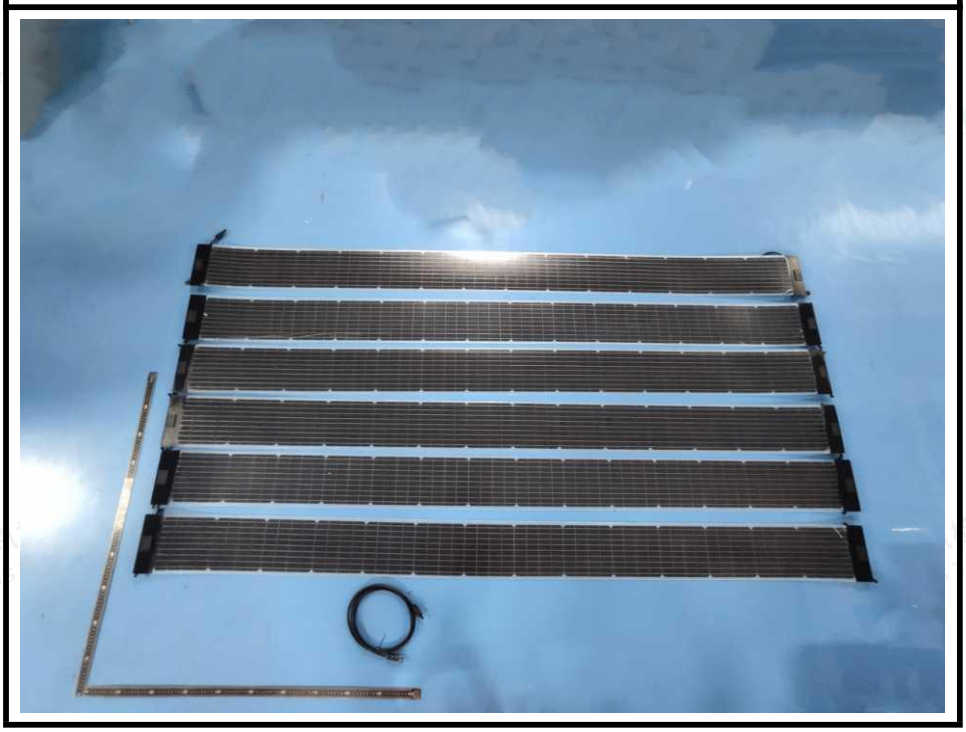





Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

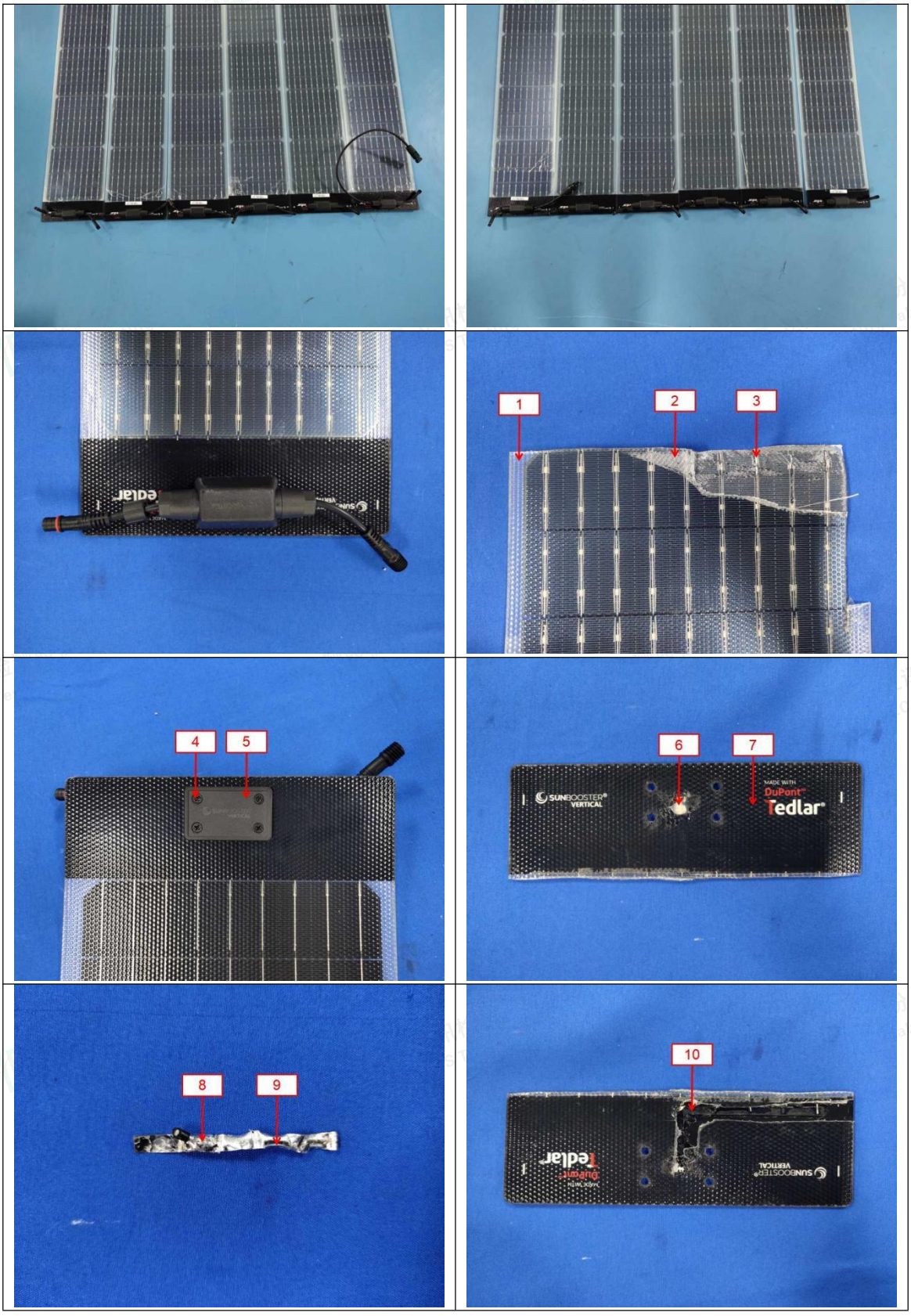
# The photo(s) of the sample



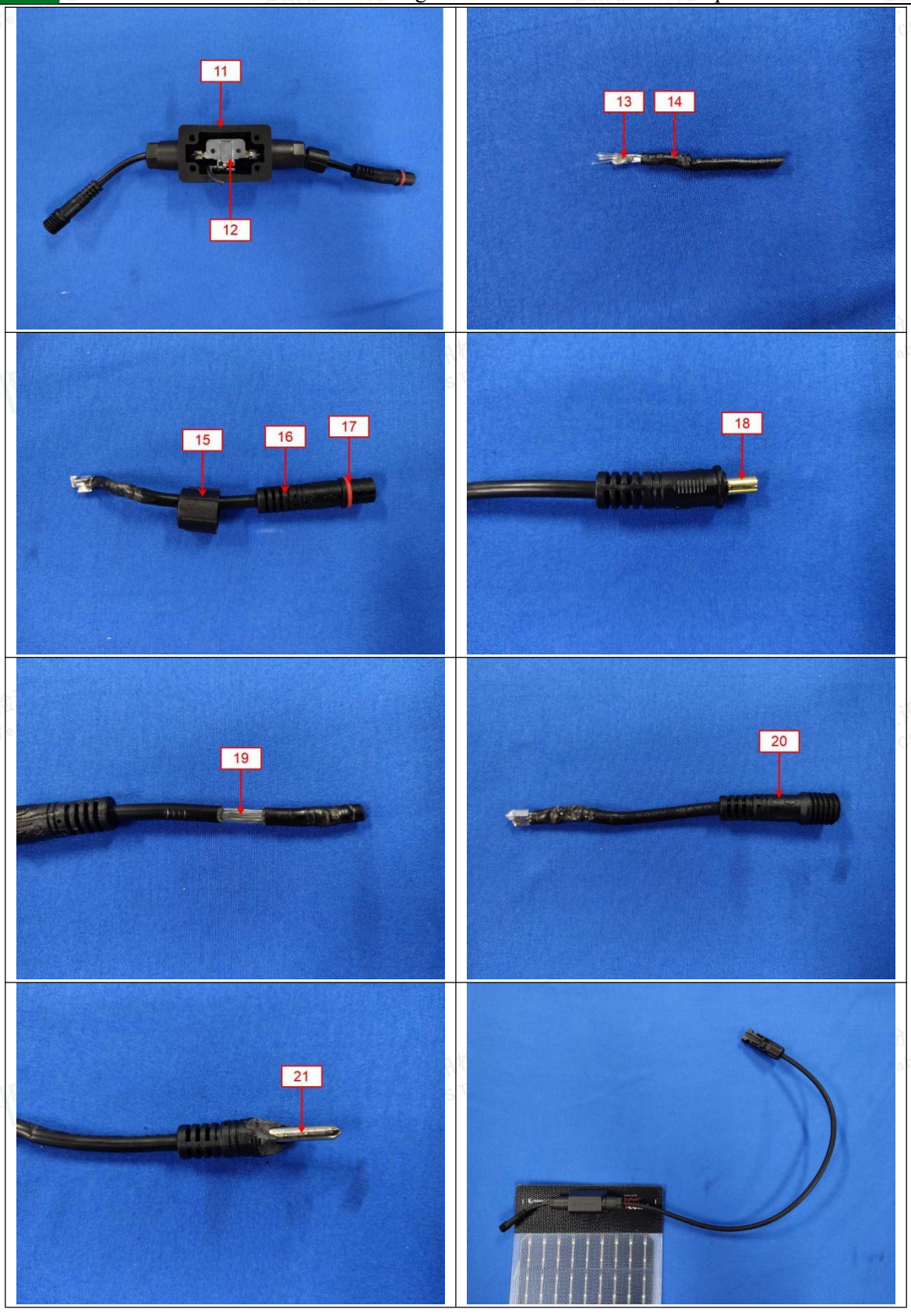


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



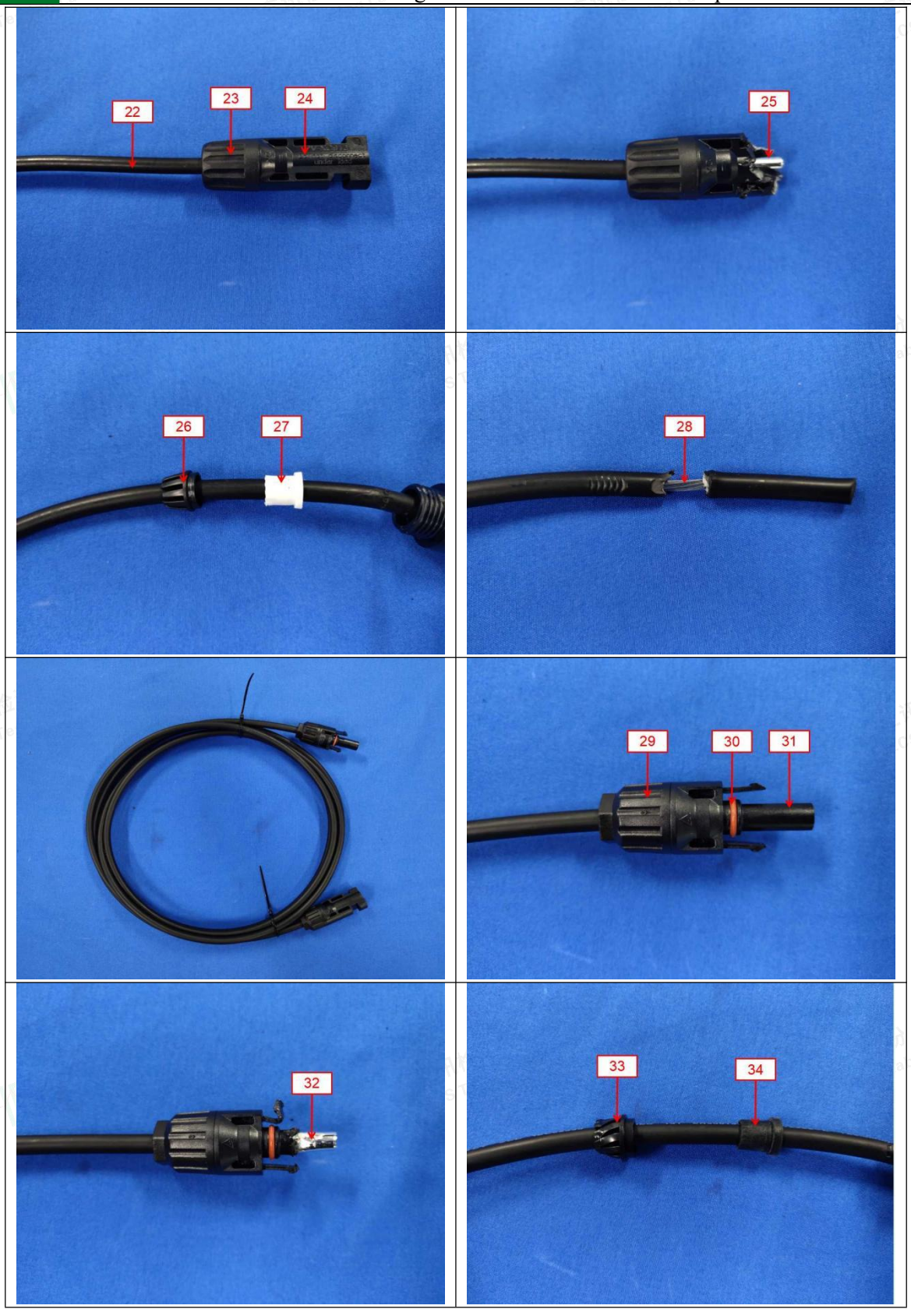



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



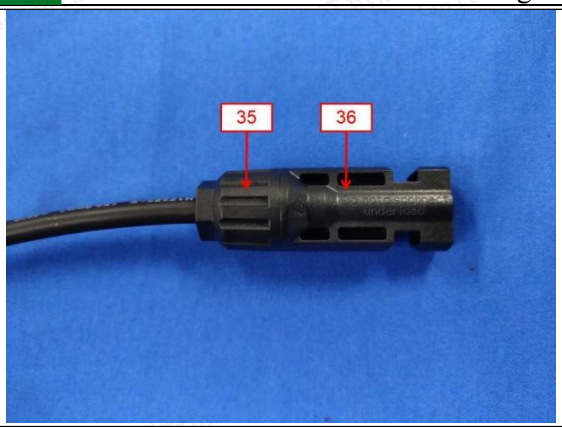


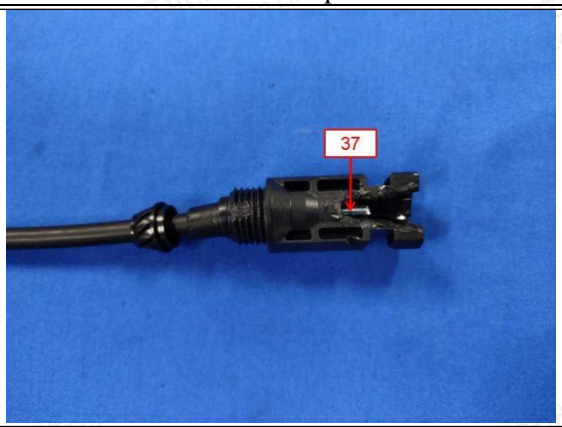

Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

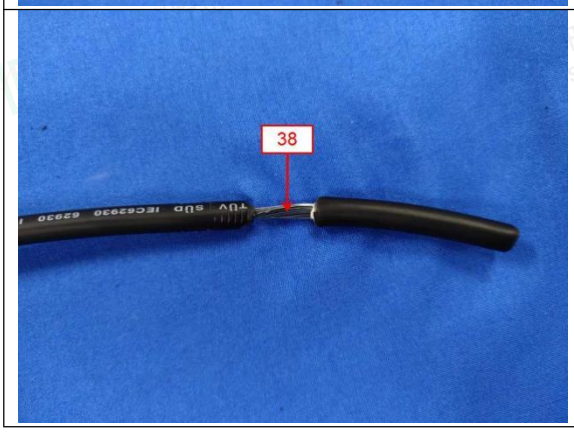





Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity




Blank

**Statement:**

1. The test report is invalid without the signature of the approver and the special seal for the company's report;
2. The company name, address and sample information shown on the report were provided by the applicant who should be responsible for the authenticity which are not verified by LCS;
3. The test results in this report are only responsible for the tested samples;
4. Without written approval of LCS, this report can't be reproduced except in full;
5. In case of any discrepancy between the corresponding Chinese and English contents in the test report, the Chinese version shall prevail.

*** End of Report ***



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity