IP68 Test Report

Applicant : XIAMEN UGUARD COMPOSITE MATERIALS CO., LTD.
Address : 88, Xiangxing Road, Torch high-tech Zone, Xiang’an, Xiamen, China.

Sample Description
Product : Waterproof LED flexible Strip
Brand Name/Trade Name : N/A
Model No. : N/A
Electrical Rating : 12VDC
Manufacturer : Same as applicant
Address : Same as applicant

Sample No. :
Date of receipt of test item : June 19, 2014
Date (s) of performance of test : June 23, 2014
Date of issue : June 30, 2014

Service Requested : Perform the IP68 test as customer’s requirement
Method : As specified in IEC60529

Conclusion : Pass
Testing by: Dendi Wei
Reviewed by: Mary Yang
Testing Engineer
Industrial and Electrical Dep.
Eurofins Testing Technology (Shenzhen) Co., Ltd.

- The results reported in this test report shall refer only to the sample actually checked and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
- This report shall not be reported except in full without prior authorization from Eurofins Testing Technology (Shenzhen) Co., Ltd.
  - The services are provided subject to the terms and condition of the company, which can be furnished upon request.

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1. IP6X Dust-proof Test

1.1 Test requirement

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Model</th>
<th>Serial no.</th>
<th>Cal. Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test probe</td>
<td>Probe D (100mm)</td>
<td>CNSZ-PTE3031</td>
<td>2015-04-18</td>
</tr>
<tr>
<td>Push-pull scale</td>
<td>FGN-250HB</td>
<td>CNSZ-PTE3113</td>
<td>2014-06-26</td>
</tr>
<tr>
<td>Apparatus for Proving Protection</td>
<td>KXT309</td>
<td>CNSZ-PTE3042</td>
<td>2015-05-16</td>
</tr>
<tr>
<td>Against Dust</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Diagram of IP6X Dust-proof Test setup]

- Approximately 100
- Sphere 35 ± 0.2
- 100 ± 0.2
- Edges free from burrs
- Handle (insulating material)
- Stop face (insulating material)
- Glass window
- Specimen en essai Test specimen
- Filtre à poussière Dust filter
- Débitmètre d'air Air flow meter
- Manomètre Manometer
- Pompe à vide Vacuum pump
- Vibrator
- Pompe de circulation, ou autres moyens prévus pour maintenir la poudre de talc en suspension

Circulation pump or other suitable means to maintain the talcum powder in suspension
1.2 Test method

1.2.1 The product (first characteristic IP numerals 6) shall be tested at every possible point (excluding gaskets) with a probe in accordance with test probe D of IEC 61032, applied with a force 1N ± 10%.

1.2.2 The test is made using a dust chamber.

Dust-proof sample (first characteristic IP numeral 6) shall be tested in a dust chamber similar to which talcum powder is maintained in suspension by an air current. The chamber shall contain 2 kg of powder for every cubic metre of its volume. The talcum powder used shall be able to pass through a square-meshed sieve whose nominal wire diameter is 50 µm and whose nominal free distance between wires is 75 µm. It shall not have been used for more than 20 tests.

The test shall proceed as follows:

a) Enclosure where no pressure difference relative to the surrounding air is present.

b) The enclosure under test is supported in its normal operating position inside the test chamber, but is not connected to a vacuum pump. Any drain-hole normally open shall be left open for the duration of the test. The test shall be continued for a period of 8h.

c) The enclosure is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test.

1.3 Test Result

Conclusion: Pass

The sample comply with the requirements of the standard.
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1. IPX8 Splash-proof Test

1.1 Test requirement
The test conditions are subject to agreement between manufacturer and user, and they are more severe than those prescribed in IPX7 and they also take account of the condition that the enclosure will be continuously immersed in actual use.

1.2 Test method
The test is made by completely immersing the enclosure in water in its service position as specified by the manufacturer so that the following conditions are satisfied:

- a) The lowest point of enclosure with a height less than 850mm is located 2000mm below the surface of the water.
- b) The duration of the test is 24h.
- c) The water temperature does not differ from that of the equipment by more than 5 K.

1.3 Test Result

Conclusion: Pass

The sample comply with the requirements of the standard.
Product Photos:

Photo 1: Top view (before test)

Photo 2: Back view (before test)
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Photo 3: Top view (after test)

Photo 4: Back view (after test)
Photo 5: Lighting (after test)

End report

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