

**Nitto Denko Corporation**  
Development Dept.  
Industrial Products Div.  
Functional Base Products Sector

ATTN: SK Energy Co., Ltd.

## LA-ST1 Water Tightness Test in Accordance with IPX5

Document No. : Ind.2112-0103

Date : December 21, 2021

Approved By : Shinichiro Kose

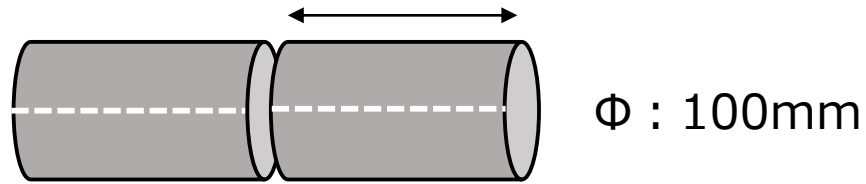
Created By : Boon Keng KOR

Notice: The data shown in this document are the examples of measured values but not for any specification purposes. Moreover, the data do not guarantee the conformity to the application(s) shown on this document. Please use this product after fully checking that there is no problem in conformity with adherend (the material which is applied by the tape) at your side. In addition, the intellectual property rights concerning this document belong to NITTO DENKO CORP. It is strictly prohibited to copy and duplicate this document without prior consent of NITTO DENKO CORP. If you have any question concerning this document, please contact the sector in charge of this document.

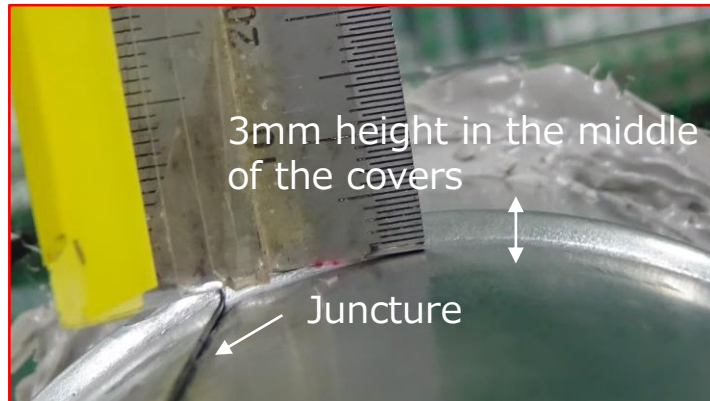
## Specimen Details

Aluminum metal cover

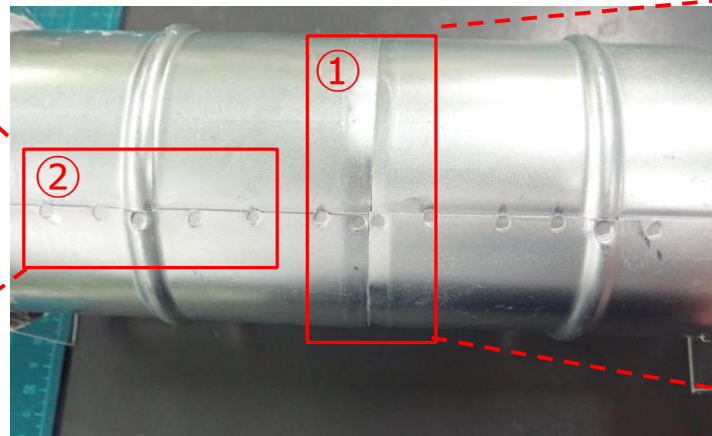
Length: 150mm



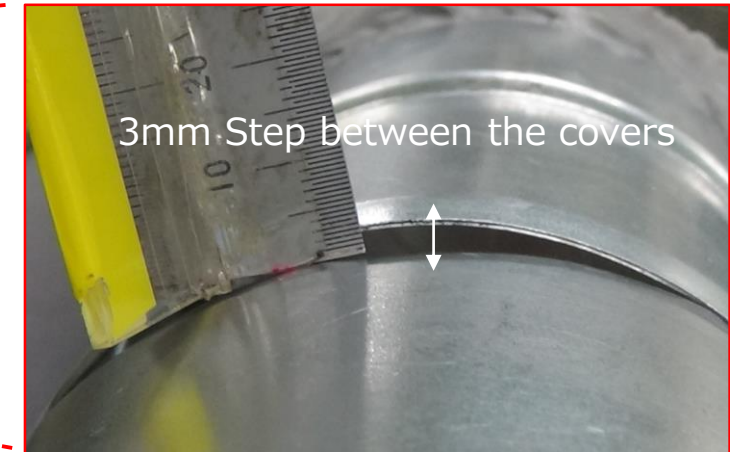
### ① Juncture in metal cover



### Water line



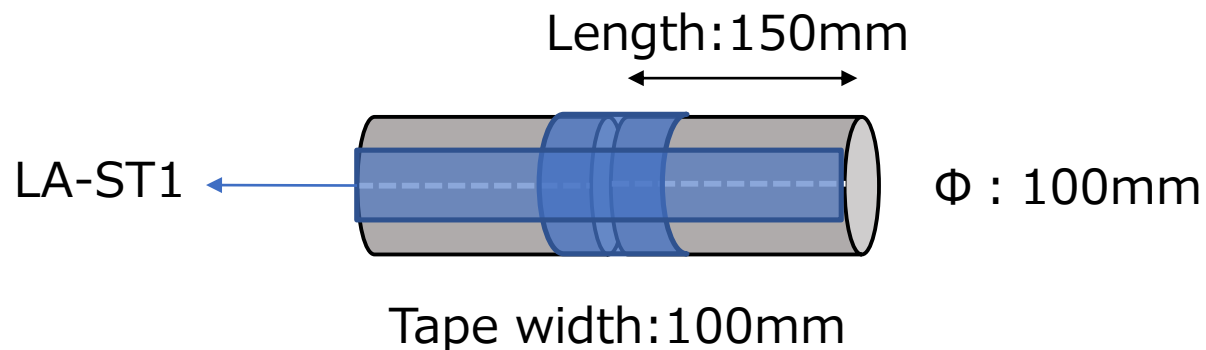
### ① Gap between metal covers



Notice: The data shown in this document are the examples of measured values but not for any specification purposes. Moreover, the data do not guarantee the conformity to the application(s) shown on this document. Please use this product after fully checking that there is no problem in conformity with adherend (the material which is applied by the tape) at your side. In addition, the intellectual property rights concerning this document belong to NITTO DENKO CORP. It is strictly prohibited to copy and duplicate this document without prior consent of NITTO DENKO CORP. If you have any question concerning this document, please contact the sector in charge of this document.

## Specimen Preparation

Seal every joint by 1.5 times overlapping LA-ST1



Seal the openings of metal cover so that the inner part is visible for water leakage checking.



Notice: The data shown in this document are the examples of measured values but not for any specification purposes. Moreover, the data do not guarantee the conformity to the application(s) shown on this document. Please use this product after fully checking that there is no problem in conformity with adherend (the material which is applied by the tape) at your side. In addition, the intellectual property rights concerning this document belong to NITTO DENKO CORP. It is strictly prohibited to copy and duplicate this document without prior consent of NITTO DENKO CORP. If you have any question concerning this document, please contact the sector in charge of this document.

## Test Condition

Test Method	IPX5
Water pressure	20kpa
Water flow rate	12L/min
Distance from nozzle to test sample	3m
Watering time	3 min
Number of test sample	2



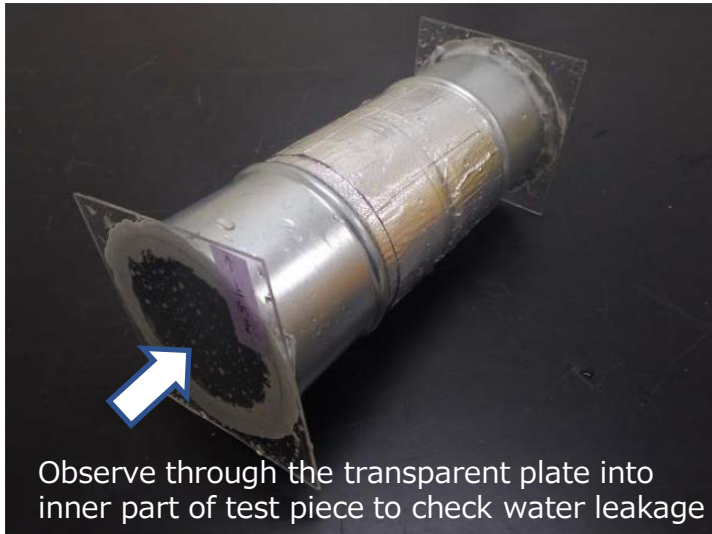
Pic 1. Under test IPX5

Test was carried out by third party.

Notice: The data shown in this document are the examples of measured values but not for any specification purposes. Moreover, the data do not guarantee the conformity to the application(s) shown on this document. Please use this product after fully checking that there is no problem in conformity with adherend (the material which is applied by the tape) at your side. In addition, the intellectual property rights concerning this document belong to NITTO DENKO CORP. It is strictly prohibited to copy and duplicate this document without prior consent of NITTO DENKO CORP. If you have any question concerning this document, please contact the sector in charge of this document.

## Test Result

### Test result



No water leakage is observed

Notice: The data shown in this document are the examples of measured values but not for any specification purposes. Moreover, the data do not guarantee the conformity to the application(s) shown on this document. Please use this product after fully checking that there is no problem in conformity with adherend (the material which is applied by the tape) at your side. In addition, the intellectual property rights concerning this document belong to NITTO DENKO CORP. It is strictly prohibited to copy and duplicate this document without prior consent of NITTO DENKO CORP. If you have any question concerning this document, please contact the sector in charge of this document.

## Certification Received From Evaluation Organization

TEST REPORT	
Report No.....	CJ21-165851S
Date of issue .....	2021-12-20
Testing Laboratory .....	Cosmos Corporation Matsusaka Laboratory
Address .....	718-1, Katsurase-cho, Matsusaka-shi, Mie 515-1104 Japan
Client's name .....	Nitto Denko Corporation
Address .....	18, Hirayama, Nakahara-cho, Toyohashi, Aichi, 441-3194 Japan
Test specification .....	<input checked="" type="checkbox"/> Full items with following standard(s) <input type="checkbox"/> Limited items with following standard(s) <input type="checkbox"/> Requested items by client
Standard .....	IEC 60529: 1989+A1: 1999+A2: 2013 IPX5
Non-standard test method .....	N/A
Test item description.....	Waterproofing Tape
Manufacturer.....	Nitto Denko Corporation
Model/Type reference.....	LA-ST1
Ratings.....	N/A
Serial No. ....	N/A
Result .....	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <small>This Test Report contains the results of tests listed in page_3.            The measurement result was judged with the measured value without taking into account measurement uncertainty.</small>

Notice: The data shown in this document are the examples of measured values but not for any specification purposes. Moreover, the data do not guarantee the conformity to the application(s) shown on this document. Please use this product after fully checking that there is no problem in conformity with adherend ( the material which is applied by the tape) at your side. In addition, the intellectual property rights concerning this document belong to NITTO DENKO CORP. It is strictly prohibited to copy and duplicate this document without prior consent of NITTO DENKO CORP. If you have any question concerning this document, please contact the sector in charge of this document.

***Nitto***

Innovation for Customers