



# TEST REPORT

Dated: 2022-01-14

Page 1 of 7

**Name and address of Applicant:** Electriduct Inc  
1650 NW 18th Street Unit 801, Pompano  
Beach, Florida, 33069, USA

**Name and address of Manufacturer:** Electriduct Inc  
1650 NW 18th Street Unit 801, Pompano  
Beach, Florida, 33069, USA

**Test subject:** The tested object(s) was(were) submitted and described by applicant as:  
Product Name: Shrink Soldersleeve Shield Terminators  
Product Model: HS-HP-SS (RoHS Series)

**Test specification:** 2011/65/EU (RoHS) Directive and its Annex II amending directive 2015/863/EU.  
Test with reference to EN 62321-1:2013, EN 62321-2:2014, EN 62321-4:2014 /A1:2017, EN 62321-5:2014, EN 62321-6:2015, EN 62321-7-1:2015; EN 62321-7-2:2017 and EN 62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

**Sample Receiving date:** Jan 06, 2022

**Testing period:** Jan 07, 2022 to Jan 14, 2022

**Test result:** Refer to the data listed in following pages

**Conclusion:** With regard to the data of tested components, the requirements of Directive 2011/65/EU (ROHS) are complied.

**Remarks:**

1. The result relates only to the items tested.
2. The selected test items were as the request by applicant.
3. Samples were tested as received.

For and on behalf of  
Hwatest Compliance Services Co., Ltd.

2022-01-14 Kuo Chien / Approved signatory  
Date Name / Position





# TEST REPORT

Dated: 2022-01-14

Page 2 of 7

## 1. Description of the tested specimen

Material No.	Description	Material	Color	Location
M001	Heat shrinkable sleeve	Polyolefin	Clear	Refer to photo
M002	Solder ring with flux	Metal	Silvery	Refer to photo
M003	Meltable ring	EVA	White	Refer to photo
M004	Meltable ring	EVA	Red	Refer to photo
M005	Meltable ring	EVA	Blue	Refer to photo
M006	Meltable ring	EVA	Yellow	Refer to photo
M007	Meltable ring	EVA	Grey	Refer to photo

## 2. Test Results

### Criteria of chemical test results

#### Pass:

A definite Pass is given if the chemical test result meets the requirements of RoHS.

#### Fail:

A definite Fail is given if the chemical test result exceeds the full respective RoHS limit.

### Metallic material wet chemical test result (Cd, Pb, Cr6<sup>+</sup>, Hg):

Test Sample	Cadmium [Cd] [mg/kg]	Lead [Pb] [mg/kg]	Mercury [Hg] [mg/kg]	Chromium (VI) [Cr6 <sup>+</sup> ] [mg/kg]	RESULT
Limit	100	1000	1000	1000	
M002	N.D.	6	N.D.	Negative <sup>#</sup>	Pass

### Non-metallic material wet chemical test result (Cd, Pb, Cr6<sup>+</sup>, Hg, PBBs, PBDEs):

Test Sample	Cadmium [Cd] [mg/kg]	Lead [Pb] [mg/kg]	Mercury [Hg] [mg/kg]	Chromium (VI) [Cr6 <sup>+</sup> ] [mg/kg]	RESULT
Limit	100	1000	1000	1000	
M001	N.D.	N.D.	N.D.	N.D.	Pass
M003	N.D.	N.D.	N.D.	N.D.	Pass
M004	N.D.	N.D.	N.D.	N.D.	Pass
M005	N.D.	N.D.	N.D.	N.D.	Pass
M006	N.D.	N.D.	N.D.	N.D.	Pass
M007	N.D.	N.D.	N.D.	N.D.	Pass



# TEST REPORT

Dated: 2022-01-14

Page 3 of 7

Test Sample	M001	M003	M004	M005	M006	M007
Limit	1000	1000	1000	1000	1000	1000
RESULT	Pass	Pass	Pass	Pass	Pass	Pass
<b>PBBs (Sum) [mg/kg]</b>	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Monbromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dibromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tribromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Pentabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hexabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Octabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Nonabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Decabromobiphenyl	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Test Sample	M001	M003	M004	M005	M006	M007
Limit	1000	1000	1000	1000	1000	1000
RESULT	Pass	Pass	Pass	Pass	Pass	Pass
<b>PBDEs (Sum) [mg/kg]</b>	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Monbromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Dibromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tribromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Octabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Decabromodiphenyl ether	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.



# TEST REPORT

Dated: 2022-01-14

Page 4 of 7

## Non-metallic material wet chemical test result (DEHP, DBP, BBP, DIBP):

Test Sample	DEHP [mg/kg]	DBP [mg/kg]	BBP [mg/kg]	DIBP [mg/kg]	RESULT
Limit	1000	1000	1000	1000	
M001	N.D.	N.D.	N.D.	N.D.	Pass
M003	N.D.	N.D.	N.D.	N.D.	Pass
M004	N.D.	N.D.	N.D.	N.D.	Pass
M005	N.D.	N.D.	N.D.	N.D.	Pass
M006	N.D.	N.D.	N.D.	N.D.	Pass
M007	N.D.	N.D.	N.D.	N.D.	Pass

### Remark:

1. "--" means the substance for this sample are not tested.
2. "mg/kg" denotes "milligram per kilogram"
3. "N.D." = denotes Not Detected
4. Detected limit of Cd, Pb, Hg: 2mg/kg; PBBs and PBDEs: 5mg/kg; Cr: 8mg/kg.
5. Detected limit of DEHP, DBP, BBP and DIBP: 50mg/kg
6. "<" means less than (<MDL)
7. "#" The Chromium (VI) content in surface layer have been confirmed with reference to EN 62321-7-1:2015

	Chromium (VI) concentration	Qualitative result
Negative	$<0.1 \mu\text{g}/\text{cm}^2$	The sample is negative for Cr(VI). –The Cr(VI) concentration is below the limit of quantification. The coating is considered a non Cr(VI) based coating.
Inconclusive	$\geq 0.1 \mu\text{g}/\text{cm}^2$ and $\leq 0.13 \mu\text{g}/\text{cm}^2$	The result is considered to be inconclusive. –Unavoidable coating variations may influence the determination. Recommendation: if additional samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trails for the final determination.
Positive	$>0.13 \mu\text{g}/\text{cm}^2$	The sample is positive for Cr(VI). –The Cr(VI) concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI).



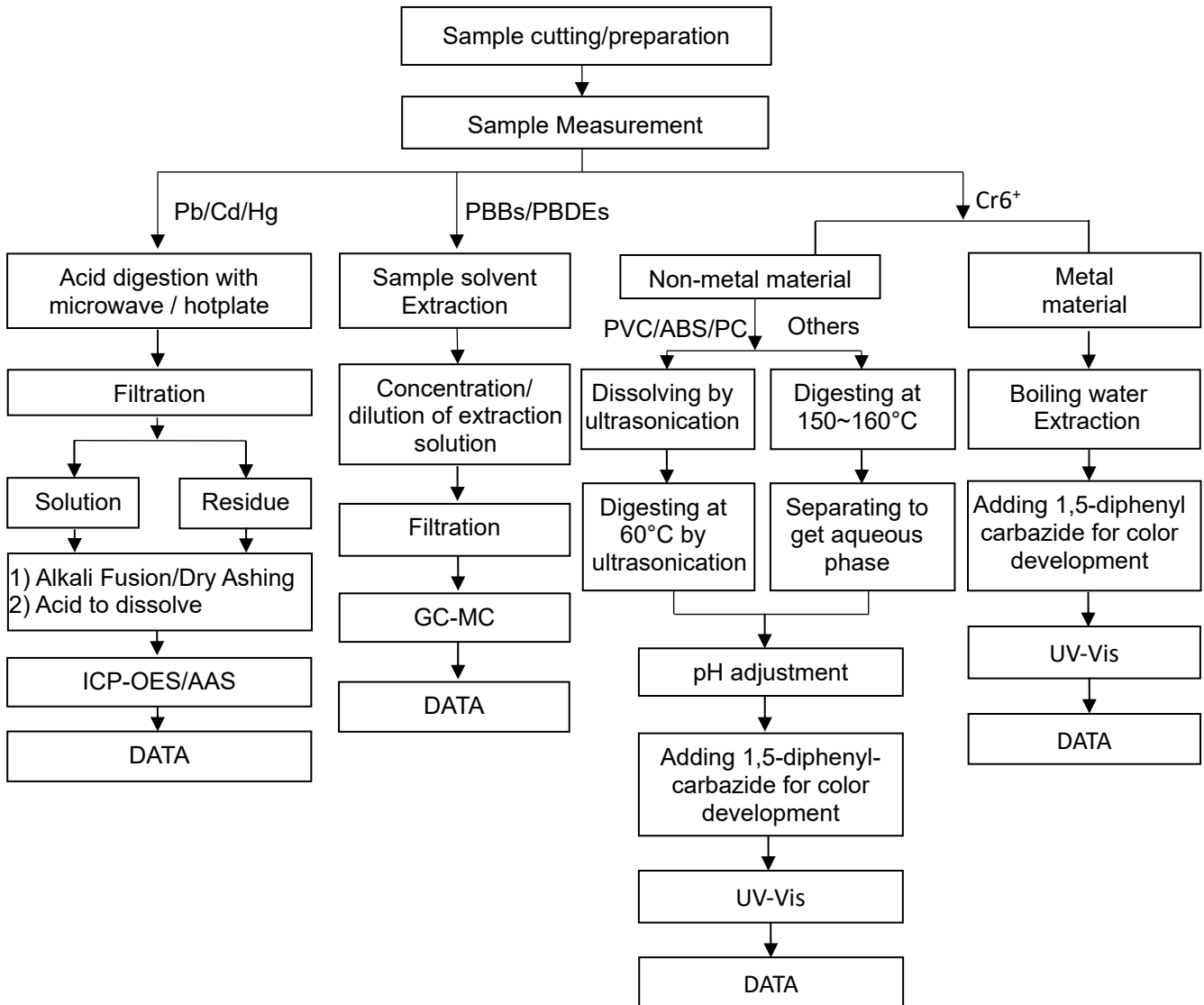
# TEST REPORT

Dated: 2022-01-14

Page 5 of 7

## Test Flow Chart for Pb/Cd/Hg/PBBs/PBDEs/CrVI

- 1) Name of the person who made testing: Mary Luo
- 2) Name of the person in charge of testing: Xiao Liu
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (CrVI and PBBs/PBDEs test method excluded).





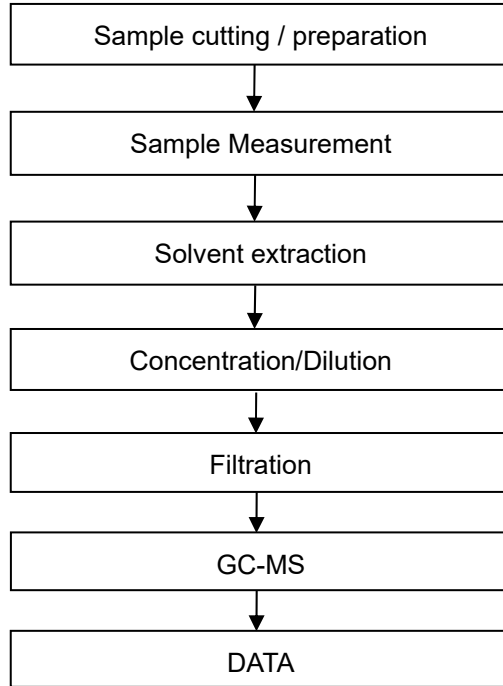
# TEST REPORT

Dated: 2022-01-14

Page 6 of 7

## Test Flow Chart for Phthalates

- 1) Name of the person who made testing: Mary Luo
- 2) Name of the person in charge of testing: Xiao Liu
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.

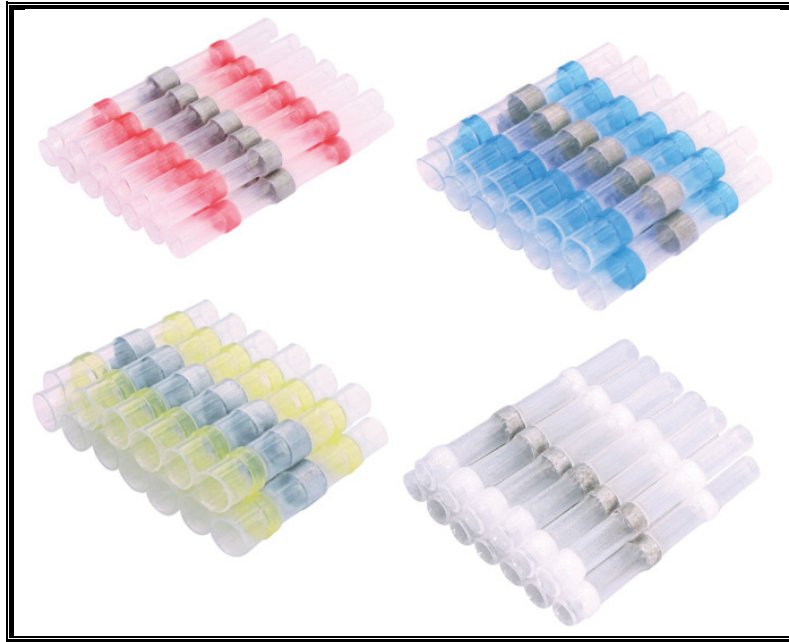




# TEST REPORT

Dated: 2022-01-14  
Sample Photo(s):

Page 7 of 7



\*\*\* End of Report \*\*\*