

TEST REPORT

Applicant : Alpha Korea Ltd.
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Page: 1 of 5

Report No. RT16R-S0083-002-E1

Date: Jan. 08, 2016

Sample Description : The following submitted sample(s) said to be:-

Name/Type of Product : Wire XL806 SACX0307
Sample ID No. : RT16R-S0083-002
Manufacturer/Vendor : Alpha Korea Ltd.

Sample received : Jan. 05, 2016
Testing Date : Jan. 05, 2016 ~ Jan. 08, 2016

Test Type : RoHS wet chemical analysis
Test Method(s) : Please see the following page(s).
Test Result(s) : Please see the following page(s).

* Note 1 : The test results presented in this report relate only to the object tested.

* Note 2 : This report shall not be reproduced except in full without the written approval of the testing laboratory.

Approved by,



Jade Jang / Lab. Technical Manager

Authorized by,



Bo Park / Lab. General Manager



Authenticity check

TEST REPORT

Report No. RT16R-S0083-002-E1

Sample ID No. : RT16R-S0083-002
Sample Description : Wire XL806 SACX0307

| Test Item | Unit | Test Method | MDL | Result |
|--|--------------------|--|------|----------|
| Cadmium (Cd) | mg/kg | With reference to IEC 62321-5 Edition 1.0 : 2013, by acid digestion and determined by ICP-OES | 0.5 | N.D. |
| Lead (Pb) | mg/kg | | 5 | 56 |
| Mercury (Hg) | mg/kg | With reference to IEC 62321-4 Edition 1.0 : 2013, by acid digestion and determined by ICP-OES | 2 | N.D. |
| Hexavalent Chromium (Cr ⁶⁺) (For metal) | μg/cm ² | With reference to IEC 62321-7-1 Edition 1.0 : 2015, by boiling water extraction and determined by UV-VIS Spectrophotometer | 0.10 | Negative |

Tested by : Jean Kim, Hyojoo Kim

Notes : mg/kg = ppm = parts per million
μg/cm² = microgram per square centimeter
< = Less than
N.D. = Not detected (<MDL)
MDL = Method detection limit

Remarks : Interpretation of Cr⁶⁺ results

| Qualitative result | Concentration of Cr ⁶⁺ (μg/cm ²) | Meaning |
|--------------------|--|--|
| Negative | < 0.10 | The sample coating is considered a non-Cr ⁶⁺ based coating. |
| Inconclusive | 0.10 ≤ and ≤ 0.13 | Unavoidable coating variation may influence the determination. |
| Positive | > 0.13 | The sample coating is considered to contain Cr ⁶⁺ . |

- The qualitative results should be determination by the average result of three test results. (If concentration of Cr⁶⁺ is over 0.10 μg/cm²)
- The above results will be carried out by visual comparison only with the standard.

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Sample Description : Wire XL806 SACX0307

| Test Item | Unit | Test Method | MDL | Result |
|--|-------|--|-----|--------|
| Polybrominated Biphenyl (PBBs) | | | | |
| Monobromobiphenyl | mg/kg | With reference to IEC 62321-6 Edition 1.0 : 2015, by solvent extraction and determined by GC/MS | 5 | N.D. |
| Dibromobiphenyl | mg/kg | | 5 | N.D. |
| Tribromobiphenyl | mg/kg | | 5 | N.D. |
| Tetrabromobiphenyl | mg/kg | | 5 | N.D. |
| Pentabromobiphenyl | mg/kg | | 5 | N.D. |
| Hexabromobiphenyl | mg/kg | | 5 | N.D. |
| Heptabromobiphenyl | mg/kg | | 5 | N.D. |
| Octabromobiphenyl | mg/kg | | 5 | N.D. |
| Nonabromobiphenyl | mg/kg | | 5 | N.D. |
| Decabromobiphenyl | mg/kg | | 5 | N.D. |
| Polybrominated Diphenyl Ether (PBDEs) | | | | |
| Monobromodiphenyl ether | mg/kg | With reference to IEC 62321-6 Edition 1.0 : 2015, by solvent extraction and determined by GC/MS | 5 | N.D. |
| Dibromodiphenyl ether | mg/kg | | 5 | N.D. |
| Tribromodiphenyl ether | mg/kg | | 5 | N.D. |
| Tetrabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Pentabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Hexabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Heptabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Octabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Nonabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Decabromodiphenyl ether | mg/kg | | 5 | N.D. |

Tested by : Hyoji Lee

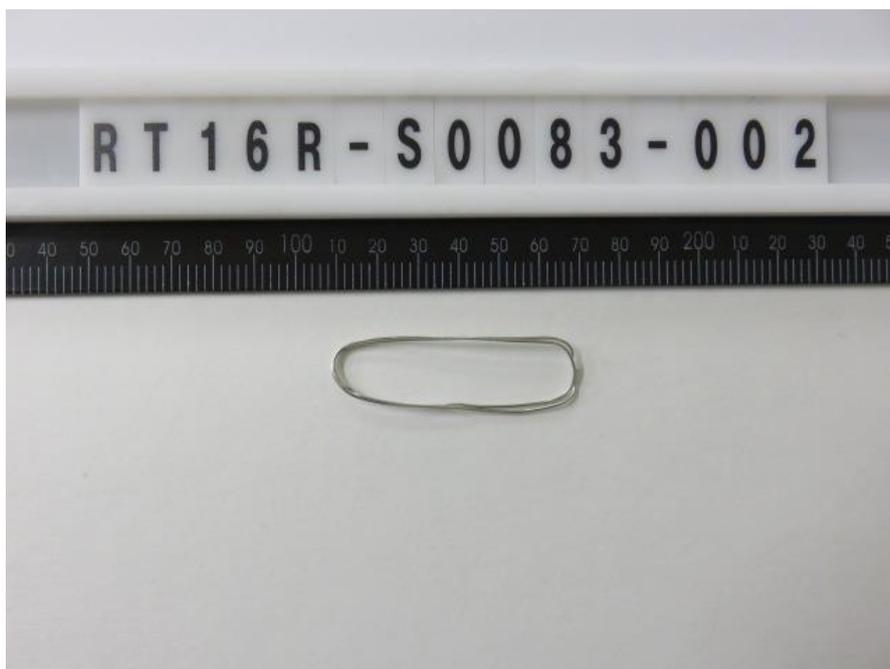
Notes : mg/kg = ppm = parts per million
< = Less than
N.D. = Not detected (<MDL)
MDL = Method detection limit

TEST REPORT

Report No. RT16R-S0083-002-E1

Sample ID No. : RT16R-S0083-002
Sample Description : Wire XL806 SACX0307

* View of sample as received;-

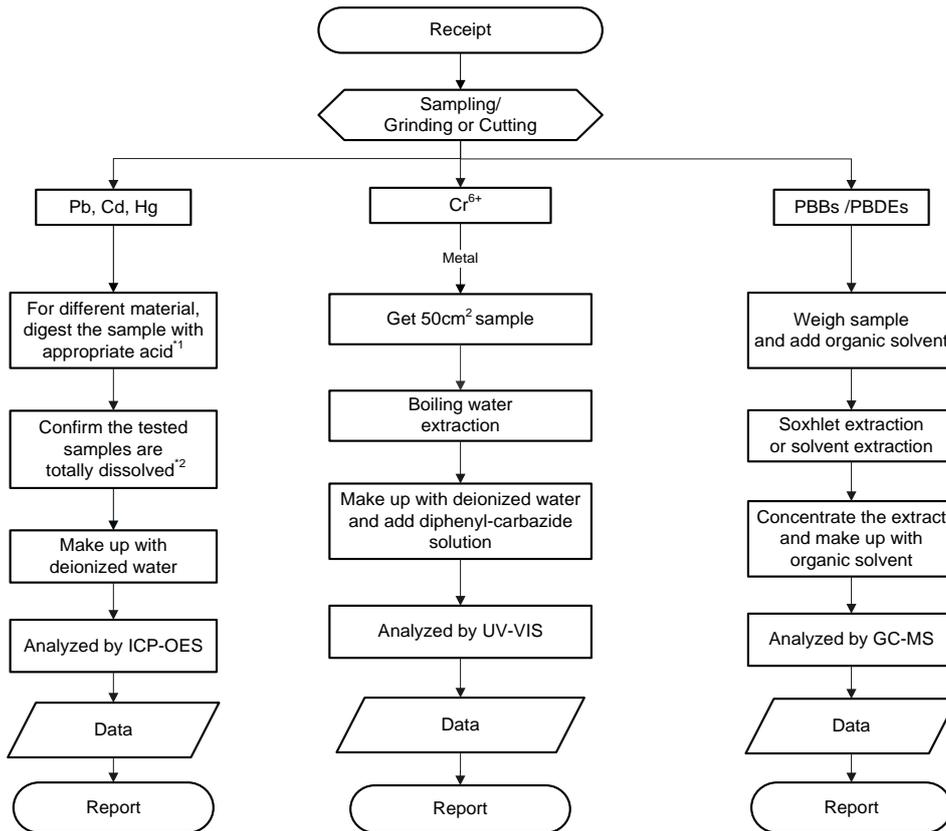


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Sample Description : Wire XL806 SACX0307

Flow Chart
(IEC 62321 Edition 1.0)



Remarks :

*1 : List of appropriate acid :

| Material | Acid added for digestion |
|-------------|--|
| Polymers | HNO ₃ , HCl, HF, H ₂ O ₂ , H ₃ BO ₃ |
| Metals | HNO ₃ , HCl, HF |
| Electronics | HNO ₃ , HCl, H ₂ O ₂ , HBF ₄ |

*2 : The samples were dissolved totally by pre-conditioning method according to above flow chart.

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

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