



# Test Report No. F690101/LF-CTSAYAA24-05982

Issued Date : 2024. 02. 06

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**HANNAM HI-TECH CO., LTD.**  
23-25, Songseonnonggongdanji-gil  
Gongju-si, Chungnam  
Korea



The following sample(s) was/were submitted and identified by/on behalf of the client as:-

**SGS File No.** : AYAA24-05982  
**Product Name** : Non-Woven Double Side Adhesive Tape  
**Item No./Part No.** : NW-160  
**Buyer(s)** : SAMSUNG, LG  
**Received Date** : 2024. 02. 01  
**Test Period** : 2024. 02. 01 to 2024. 02. 06  
**Test Results** : For further details, please refer to following page(s)

  
Tonny Park

  
Billy Oh

Technical Manager / SGS Korea Co., Ltd

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**Sample No.** : AYAA24-05982.001  
**Sample Description** : Non-Woven Double Side Adhesive Tape  
**Item No./Part No.** : NW-160  
**Materials** : Acrylic Foam

## Heavy Metals

| Test Items                   | Unit  | Test Method   | MDL | Results |
|------------------------------|-------|---|-----|---------|
| Cadmium (Cd)                 | mg/kg | With reference to IEC 62321-5 : 2013, by ICP-OES  | 0.5 | N.D.    |
| Lead (Pb)                    | mg/kg | With reference to IEC 62321-5 : 2013, by ICP-OES  | 5   | N.D.    |
| Mercury (Hg)                 | mg/kg | With reference to IEC 62321-4 : 2013+AMD1:2017CSV, by ICP-OES   | 2   | N.D.    |
| Hexavalent Chromium (Cr VI)* | mg/kg | With reference to IEC 62321-7-2 : 2017, by UV-Vis and/or with reference to IEC 62321-5 : 2013, by ICP-OES | 8   | N.D.    |

## Flame Retardants-PBBs/PBDEs

| Test Items               | Unit  | Test Method                                    | MDL | Results |
|--------------------------|-------|--|-----|---------|
| Monobromobiphenyl        | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Dibromobiphenyl          | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Tribromobiphenyl         | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Tetrabromobiphenyl       | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Pentabromobiphenyl       | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Hexabromobiphenyl        | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Heptabromobiphenyl       | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Octabromobiphenyl        | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Nonabromobiphenyl        | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Decabromobiphenyl        | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Monobromodiphenyl ether  | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Dibromodiphenyl ether    | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Tribromodiphenyl ether   | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Tetrabromodiphenyl ether | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Pentabromodiphenyl ether | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Hexabromodiphenyl ether  | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Heptabromodiphenyl ether | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Octabromodiphenyl ether  | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Nonabromodiphenyl ether  | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |
| Decabromodiphenyl ether  | mg/kg | With reference to IEC 62321-6 : 2015, by GC-MS | 5   | N.D.    |

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**Sample No.** : AYAA24-05982.001  
**Sample Description** : Non-Woven Double Side Adhesive Tape  
**Item No./Part No.** : NW-160  
**Materials** : Acrylic Foam

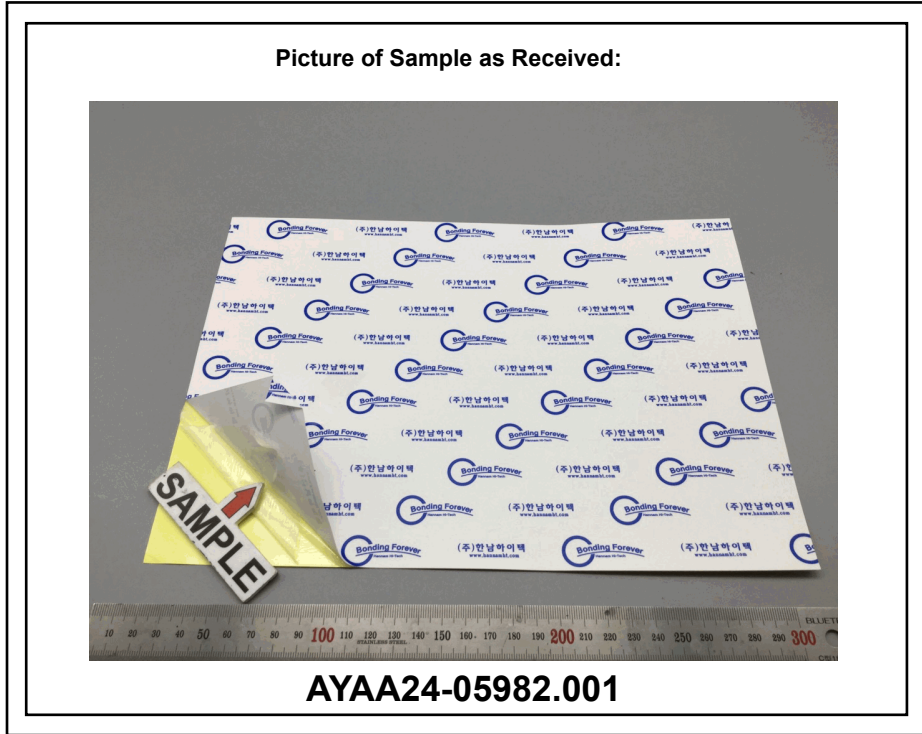
**Phthalates**

| Test Items                         | Unit  | Test Method                                    | MDL | Results |
|------------------------------------|-------|--|-----|---------|
| Di-(2-ethylhexyl) phthalate (DEHP) | mg/kg | With reference to IEC 62321-8 : 2017, by GC-MS | 50  | N.D.    |
| Di-butyl phthalate (DBP)           | mg/kg | With reference to IEC 62321-8 : 2017, by GC-MS | 50  | N.D.    |
| Benzyl butyl phthalate (BBP)       | mg/kg | With reference to IEC 62321-8 : 2017, by GC-MS | 50  | N.D.    |
| Di-isobutyl phthalate (DIBP)       | mg/kg | With reference to IEC 62321-8 : 2017, by GC-MS | 50  | N.D.    |

**Halogen Content**

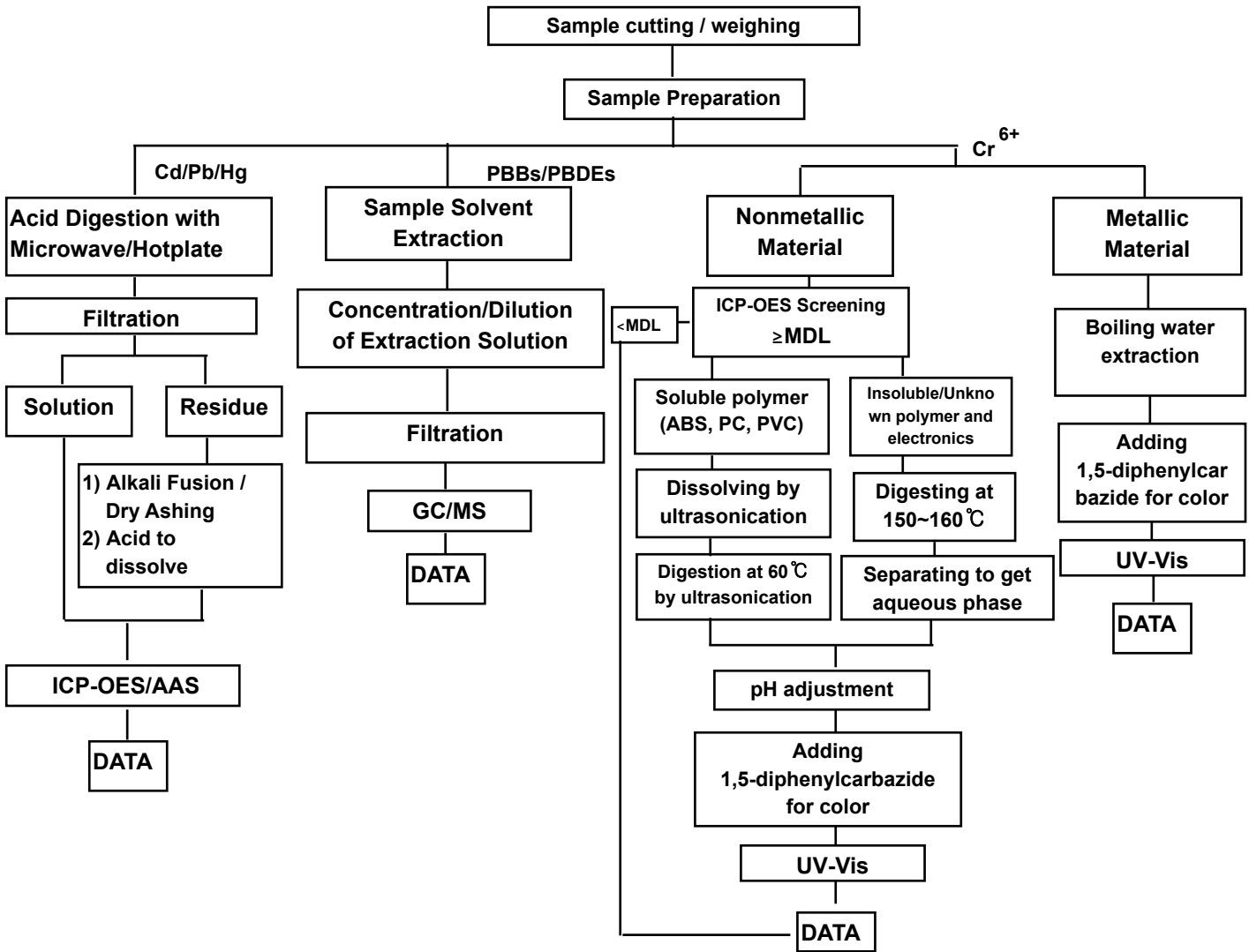
| Test Items   | Unit  | Test Method                                 | MDL | Results |
|--------------|-------|---|-----|---------|
| Bromine(Br)  | mg/kg | With reference to BS EN 14582 : 2016, by IC | 30  | N.D.    |
| Chlorine(Cl) | mg/kg | With reference to BS EN 14582 : 2016, by IC | 30  | N.D.    |

- NOTE:
- (1) N.D. = Not detected. (<MDL)
  - (2) mg/kg = ppm, ug/kg = ppb, mg/L = ppm
  - (3) MDL = Method Detection Limit
  - (4) - = No regulation
  - (5) \*\* = Qualitative analysis (No Unit)
  - (6) Negative = Undetectable / Positive = Detectable
  - (7) \* = a. The result of Hexavalent Chromium (Cr(VI)) is "ND" as the result of Chromium (Cr) is "ND", and confirmation test of Hexavalent Chromium (Cr(VI)) is not required.  
 b. If the content of Total Chromium (Cr) is greater than the MDL of Hexavalent Chromium (Cr(VI)), it is the result of hexavalent Chromium by UV-VIS.
  - (8) The results shown in this test report refer only to the sample(s) tested unless otherwise stated.  
 This test report is not related to Korea Laboratory Accreditation Scheme .



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**Testing Flow Chart for RoHS: Cd/Pb/Hg/Cr<sup>6+</sup> /PBBs&PBDEs Testing**

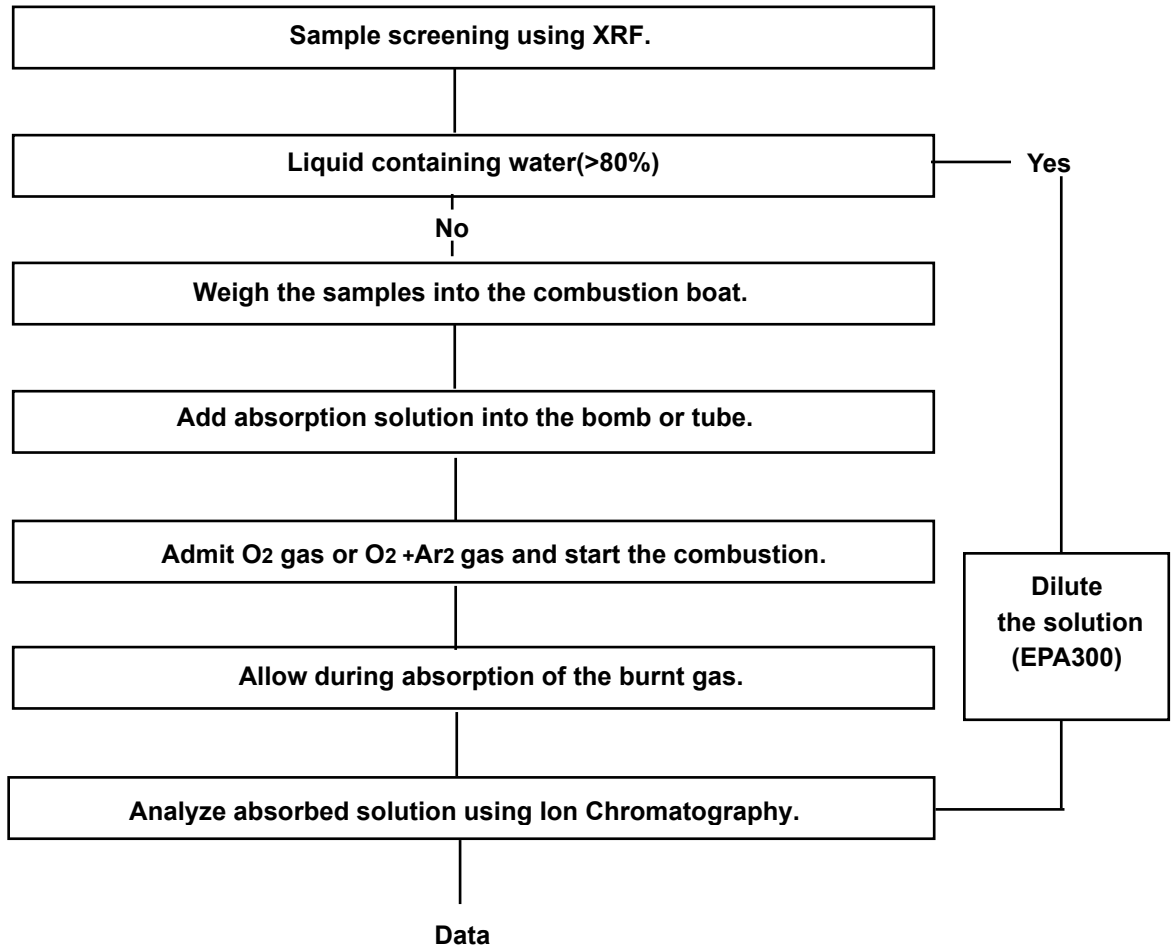


The samples were dissolved totally at the acid digestion step of the above flow chart for Cd,Pb,Hg  
 Section Chief : Tonny Park

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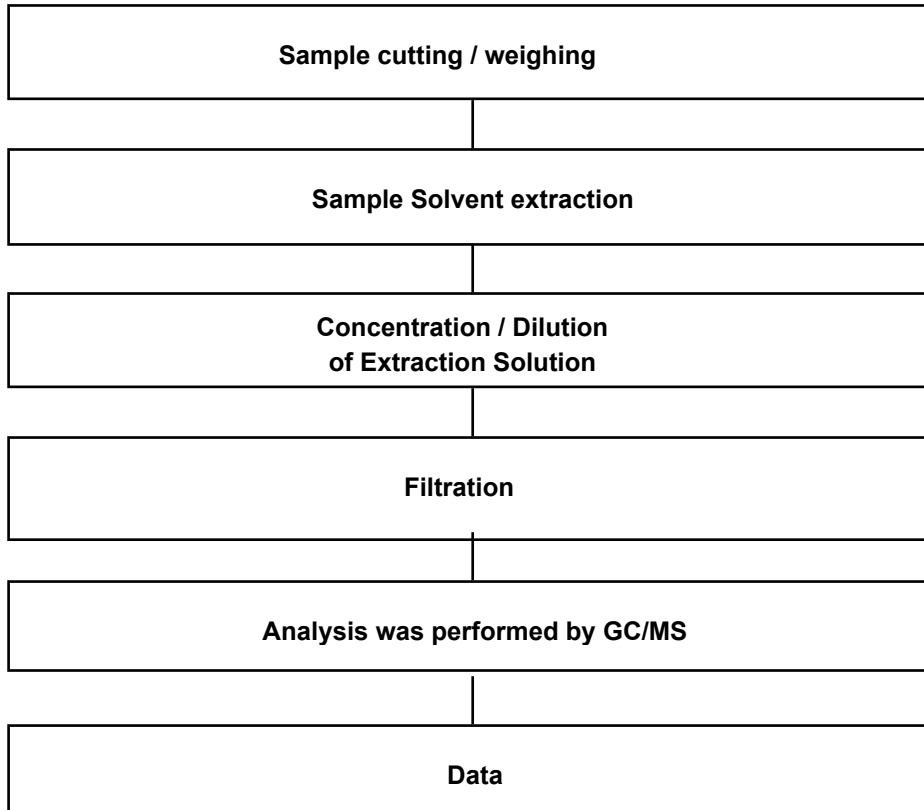
### Flow Chart for Halogen Test



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### Flow Chart for Phthalate Test



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

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