

## Test Report

Number : TWNCC00810921

Date : Aug 02, 2019

Applicant: Leading Technologies  
1153 Industrial Park Rd,  
Leechburg, PA 15656, USA

### Sample Description:

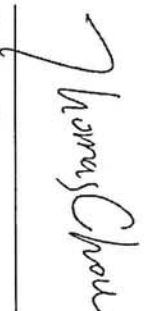
One (1) group of submitted samples said to be :

Sample Description : : A  
Date Sample Received : Jul 26, 2019  
Date Test Started : Jul 26, 2019

### Test Conducted:

As requested by the applicant, for details please refer to attached pages.

Signed by:

  
Thomas Chou  
Manager

Authorized By:  
On behalf of Intertek Testing Services  
Taiwan Limited


Matt Wang  
Sr. Manager



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Test Conducted :

Test Result Summary:

Test Item	Unit	Test Method	Result	
			Copper/silver/ metal	RL
<b>Heavy Metal</b>				
Cadmium (Cd) Content	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES.	ND	2
Lead (Pb) Content	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES.	20	2
Mercury (Hg) Content	ppm	With reference to IEC 62321-4:2013+AMD1:2017, by microwave or acid digestion and determined by ICP-OES.	ND	2
Chromium VI (Cr <sup>6+</sup> ) Content @	µg/cm <sup>2</sup>	With reference to IEC 62321-7-1: 2015, by boiling water extraction and determined by UV-Vis Spectrophotometer or visual observation.	Negative	0.10
<b>Polybrominated Biphenyls (PBBS)</b>				
Monobrominated Biphenyls (MonoBB)	ppm	With reference to IEC 62321-6: 2015, by solvent extraction and determined by GC-MS and further HPLC-DAD confirmation when necessary.	ND	5
Dibrominated Biphenyls (DiBB)	ppm		ND	5
Tribrominated Biphenyls (TriBB)	ppm		ND	5
Tetrabrominated Biphenyls (TetraBB)	ppm		ND	5
Pentabrominated Biphenyls (PentaBB)	ppm		ND	5
Hexabrominated Biphenyls (HexaBB)	ppm		ND	5
Heptabrominated Biphenyls (HeptaBB)	ppm		ND	5
Octabrominated Biphenyls (OctaBB)	ppm		ND	5
Nonabrominated Biphenyls (NonaBB)	ppm		ND	5
Decabrominated Biphenyl (DecaBB)	ppm		ND	5



Test Conducted :

Test Item	Unit	Test Method	Result		
			Copper/silver/ metal	RL	
<b>Polybrominated Diphenyl Ethers (PBDES)</b>					
Monobrominated Diphenyl Ethers (MonobDE)	ppm	With reference to IEC 62321-6: 2015, by solvent extraction and determined by GC-MS and further HPLC-DAD confirmation when necessary.	ND	5	
Dibrominated Diphenyl Ethers (DIBDE)	ppm		ND	5	
Tribrominated Diphenyl Ethers (TriBDE)	ppm		ND	5	
Tetrabrominated Diphenyl Ethers (TetraBDE)	ppm		ND	5	
Pentabrominated Diphenyl Ethers (PentaBDE)	ppm		ND	5	
Hexabrominated Diphenyl Ethers (HexaBDE)	ppm		ND	5	
Heptabrominated Diphenyl Ethers (HeptaBDE)	ppm		ND	5	
Octabrominated Diphenyl Ethers (OctaBDE)	ppm		ND	5	
Nonabrominated Diphenyl Ethers (NonaBDE)	ppm		ND	5	
Decabrominated Diphenyl Ether (DecaBDE)	ppm		ND	5	
<b>Phthalates</b>					
Di(2-ethylhexyl) Phthalate (DEHP)	ppm		With reference to IEC 62321-8:2017, by solvent extraction and determined by GC-MS.	ND	50
Dibutyl Phthalate (DBP)	ppm	ND		50	
Benzyl Butyl Phthalate (BBP)	ppm	ND		50	
Diisobutyl Phthalate (DIBP)	ppm	ND		50	
<b>Halogen Content</b>					
Fluorine (F)	ppm	With reference to EN 14582:2016 by combustion	ND	50	
Chlorine (Cl)	ppm	bomb with oxygen and	ND	50	
Bromine (Br)	ppm	determined by Ion	ND	50	
Iodine (I)	ppm	Chromatography.	ND	50	

Remarks: ppm = Parts per million based on weight of tested sample = mg/kg

ND = Not detected

RL = Reporting limit, quantitation limit of analyte in sample



Number : TWNC00810921

Test Conducted :

@ The explanation of Chromium VI (Cr<sup>6+</sup>) analysis results

Colorimetric result	Qualitative Result	Explanation
< 0.10 µg/cm <sup>2</sup>	Negative	The result of sample is negative for Cr(VI). The sample coating is considered a non-Cr(VI) based coating.
≥ 0.10 µg/cm <sup>2</sup> and ≤ 0.13 µg/cm <sup>2</sup>	Inconclusive	The result of sample is considered to be inconclusive. If addition samples are available, recommend to add trials and get the average result for the final determination.
> 0.13 µg/cm <sup>2</sup>	Positive	The result of sample is positive for Cr(VI). The sample coating is considered to contain Cr(VI). A result expresses as Positive, while not an actual value, which indicates a visual observation was used.

Responsibility of Chemist: Pely Hsiao/ Vita Fu

Date Sample Received : Jul 26, 2019

Test Period : Jul 26, 2019 to Aug 01, 2019

RoHS Limit

Restricted Substances	Limits
Cadmium (Cd) content	0.01% (100ppm)
Lead (Pb) content	0.1% (1000ppm)
Mercury (Hg) content	0.1% (1000ppm)
Chromium VI (Cr <sup>6+</sup> ) content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDES)	0.1% (1000ppm)
Di(2-ethylhexyl) Phthalate (DEHP)	0.1% (1000ppm)
Dibutyl Phthalate (DBP)	0.1% (1000ppm)
Benzyl Butyl Phthalate (BBP)	0.1% (1000ppm)
Diisobutyl Phthalate (DIBP)	0.1% (1000ppm)

The limits were quoted from Annex II of 2011/65/EU and Amendment (EU) 2015/863 for homogeneous material.

