



Total Quality. Assured.

Test Report

Number : TWNCC00810927

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 : **G**
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.

Authorized By:

On behalf of Intertek Testing Services
Taiwan Limited

Matt Wang
Sr. Manager



Signed by:

Thomas Chou
Manager



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Test Conducted :

Test Result Summary:

Test Item	Unit	Test Method	Result	
			Coppery metal	RL
Heavy Metal				
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.	ND	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 ⁶⁺) Content @	µg/cm ²	With reference to IEC 62321-7-1: 2015, by boiling water extraction and determined by UV-Vis Spectrophotometer or visual observation.	Negative	0.10
Polybrominated Biphenyls (PBBS)				
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	
			Coppery metal	RL
Polybrominated Diphenyl Ethers (PBDES)				
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
Phthalates				
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
Halogen Content				
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



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@ The explanation of Chromium VI (Cr⁶⁺) analysis results

Colorimetric result	Qualitative Result	Explanation
< 0.10 µg/cm ²	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 ² and ≤ 0.13 µg/cm ²	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 ²	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: Pelnv Hsiaof/ 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 ⁶⁺) 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.

