

Test Report Number: GZHH00271163

Date:

Feb 09, 2018

Applicant: ZHEJIANG HOYTECH CO., LTD.

LIULI INDUSTRIAL PARK, GANPU TOWN,

HAIYAN COUNTY, JIAXING CITY,

ZHEJIANG PROVINCE

Attn: 陈又喜

Sample Description: Two (2) submitted samples said to be **loose lay quick-fit** 浙江禾运科技有限公司 Manufacturer

Date Sample Received



Tests conducted:

As requested by the applicant, refer to attached page(s) for details.

Conclusion:

Tested Sample

Tested component (1) of Restriction of the use of certain hazardous substance in electrical and electronic equipment (RoHS Directive submitted samples

2011/65/EU)

Other tested components of -Ditto-

submitted samples

Pass

See test conducted

Authorized by:

For Intertek Testing Services Shenzhen Ltd.

Guangzhou Branch, Hardlines

Ben N.L. Lin General Manager

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Tests Conducted

1 **RoHS Chemical Test**

(A) Test Result Summary:

<u>Test item</u>	Result (1)to(3)	
Cadmium (Cd) Content (mg/kg)	ND	
Lead (Pb) Content (mg/kg)	ND ND	
Mercury (Hg) Content (mg/kg)	ND	
Chromium (VI)(Cr ⁸⁺) Content (mg/kg)	ND	
Polybrominated Biphenyls (PBBs)(mg/kg)		
Monobromobiphenyl (MonoBB)	ND	
Dibromobiphenyl (DiBB)	ND	
Tribromobiphenyl (TriBB)	ND	
Tetrabromobiphenyl (TetraBB)	ND	
Pentabromobiphenyl (PentaBB)	ND	
Hexabromobiphenyl (HexaBB)	ND	
Heptabromobiphenyl (HeptaBB)	ND	
Octabromobiphenyl (OctaBB)	ND	
Nonabromobiphenyl (NonaBB)	ND	
Decabromobiphenyl (DecaBB)	ND	
Polybrominated Diphenyl Ethers (PBDEs)(mg/kg)		
Monobromodiphenyl Ether (MonoBDE)	ND	
Dibromodiphenyl Ether (DiBDE)	ND	
Tribromodiphenyl Ether (TriBDE)	ND	
Tetrabromodiphenyl Ether (TetraBDE)	ND	
Pentabromodiphenyl Ether (PentaBDE)	ND	
Hexabromodiphenyl Ether (HexaBDE)	ND ND	
Heptabromodiphenyl Ether (HeptaBDE)	ND	
Octabromodiphenyl Ether (OctaBDE)	ND ND	
Nonabromodiphenyl Ether (NonaBDE)	ND ND	
Decabromodiphenyl Ether (DecaBDE)	ND	

ND = Not detected

Tested Components:

Transparent/white soft plastic with inaccessible grey coating (surface).

Deep grey soft plastic (interlayer). (2)

(3)Black plastic film (base).







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(B) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 mg/kg)
Lead (Pb)	0.1% (1000 mg/kg)
Mercury (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr ⁶⁺)	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)

(C) Test Method:

Testing Item	Testing Method	Reporting Limit
Mercury (Hg) Content	With reference to IEC 62321-4 Edition 1.0:2013+AMD1: 2017, by acid digestion and determined by ICP - OES	2 mg/kg
Cadmium (Cd) Content	With reference to IEC 62321-5 Edition 1.0:2013, by acid digestion and determined by ICP - OES	2 mg/kg
Lead (Pb) Content	With reference to IEC 62321-5 Edition 1.0:2013, by acid digestion and determined by ICP - OES	2 mg/kg
(PBBs)& Polybrominated	With reference to IEC 62321-6 Edition 1.0:2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	5 mg/kg
Chromium (VI)(Cr ⁶⁺) Content	With reference to IEC 62321-7-2 Edition 1.0:2017, Hexavalent chromium – Determination of hexavalent chromium (Cr(VI) in polymers and electronics by the colorimetric method	10 mg/kg

Date sample received: Feb 06, 2018 Testing period: Feb 06, 2018 to Feb 08, 2018

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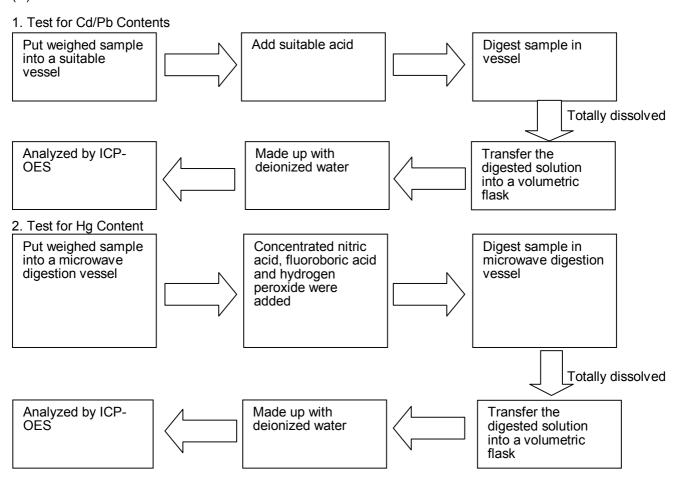




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(D) Measurement Flowchart:







NMP

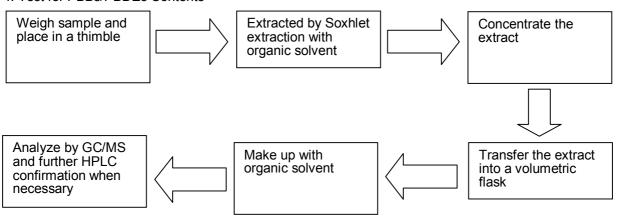
Test Report Number: GZHH00271163 **Tests Conducted** 3. Test for Chromium (VI) (Cr6+) Content Soluble polymers Weigh sample in an Dissolve each polymer Add digestion solution digestion vessel, add sample by and Ultrasonicate the

ultrasonication at

60°C Add diphenylcarbazide Adjust the pH of the Adjust the pH of the solution and make up with solution to 2.0±0.5 solution to 7.5±0.5 deionized water and transfer the solution to a volumetric flask

Analyze the mixture by using UV-VIS Spectrophotometer with wavelength set at 540 nm

4. Test for PBBs/PBDEs Contents



End of report

solution at 60 °C for

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