

TEST REPORT

Reference No. : TRGZ1303021_R1

Date : Mar. 13, 2013

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Client : 3F ELECTRONICS INDUSTRY CORP. LTD
Address : NO. 5, ZHENXING RD, LIYUHE INDUSTRY PARK, LOU VILLAGE, GONGMING STREET,
BAOAN DISTRICT, SHENZHEN

The following merchandise was (were) submitted and identified by the client as:

Name of Product : PVC wire and cable
Test Model : /
Client Reference Information : Please refer to page 6.
Main Material: PVC
Sample Received : Feb. 25, 2013
Test Period : Feb. 25, 2013 - Mar. 04, 2013
Test Request : To determine the Pb, Cd, Hg, Cr(VI), PBBs&PBDEs, DBP, BBP, DEHP and HBCDD content.
Test Method : Please refer to next page(s).
Test Result: Please refer to next page(s).
Conclusion : Based on the analysis on the submitted samples, the test results (Pb, Cd, Hg, Cr⁶⁺, PBBs, PBDEs) **comply with** the requirement of RoHS Directive 2011/65/EU (RoHS 2.0).

THIS REPORT IS TO SUPERSEDE TEST REPORT TRGZ1303021

Issued by:



TÜV NORD Green Product Service Centre
Technical Manager

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TEST RESULTS:

1. RoHS Restricted Substances (Pb, Cd, Hg, Cr⁶⁺, PBBs, PBDEs)

No.	Test Items	Methods	MDL (mg/kg)	Results (mg/kg)	Limited Value* (mg/kg)
1	Pb	M1	2	N.D.	1000
2	Hg		2	N.D.	1000
3	Cd		2	N.D.	100
4	Cr (VI)	M2	2	N.D.	1000
5	Monobromobiphenyl (MonoBB)	M3	5	N.D.	---
	Dibromobiphenyl (DiBB)		5	N.D.	---
	Tribromobiphenyl (TriBB)		5	N.D.	---
	Tetrabromobiphenyl (TetraBB)		5	N.D.	---
	Pentabromobiphenyl (PentaBB)		5	N.D.	---
	Hexabromobiphenyl (HexaBB)		5	N.D.	---
	Heptabromobiphenyl (HeptaBB)		5	N.D.	---
	Octabromobiphenyl (OctaBB)		5	N.D.	---
	Nonabromobiphenyl (NonaBB)		5	N.D.	---
	Decabromobiphenyl (DecaBB)		5	N.D.	---
	Total PBBs / sum of above		---	N.D.	1000
6	Monobromodiphenyl ether (MonoBDE)	M3	5	N.D.	---
	Dibromodiphenyl ether (DiBDE)		5	N.D.	---
	Tribromodiphenyl ether (TriBDE)		5	N.D.	---
	Tetrabromodiphenyl ether (TetraBDE)		5	N.D.	---
	Pentabromodiphenyl ether (PentaBDE)		5	N.D.	---
	Hexabromodiphenyl ether (HexaBDE)		5	N.D.	---
	Heptabromodiphenyl ether (HeptaBDE)		5	N.D.	---
	Octabromodiphenyl ether (OctaBDE)		5	N.D.	---
	Nonabromodiphenyl ether (NonaBDE)		5	N.D.	---
	Decabromodiphenyl ether (DecaBDE)		5	N.D.	---
	Total PBDEs / sum of above		---	N.D.	1000

- Remark:** 1) * The Limited value is based on the RoHS directive 2011/65/EU
 2) M1: With reference to IEC62321:2008, Analysis was performed by ICP-AES.
 3) M2: With reference to IEC62321:2008, Analysis was performed by UV-Vis.
 4) M3: With reference to IEC62321:2008, Analysis was performed by GC-MS.

- Note :** 1) MDL = Method Detection Limit.
 2) "—" = Not Regulated.
 3) N.D. = Not detected, less than MDL.

***** To be continued *****

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2. RoHS Priority Considered Substances

No.	Test Items	Test Methods	MDL (mg/kg)	Results (mg/kg)	Limited Value** (mg/kg)
1	Dibutyl Phthalate (DBP)	M4	50	N.D.	1000
2	Benzylbutyl Phthalate (BBP)		50	N.D.	1000
3	Di-(2-ethylhexyl)Phthalate (DEHP)		50	100	1000
4	Hexabromocyclododecane (HBCDD)		20	N.D.	1000

Remark: 1) ** The limited value is referenced with European Commission Regulation 1907/2006 (REACH).

2) M4: With reference to EPA 3550C-2007& EPA8270D-2007, Analysis was performed by GC-MS.

Note: 1) MDL = Method Detection Limit.
2) N.D. = Not detected, less than MDL.

Test part description: Black wire jacket

***** To be continued *****

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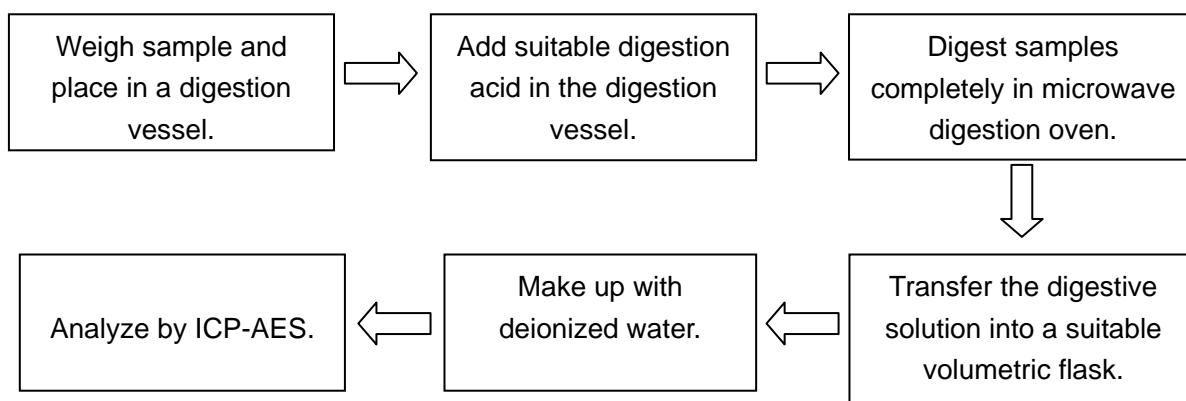
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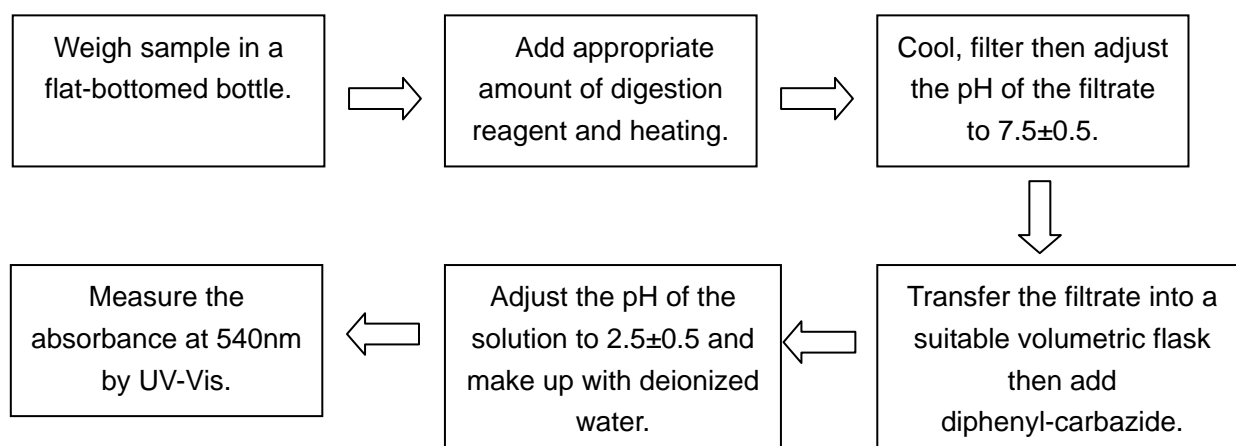
FLOW CHART

1. Test for Pb, Hg, Cd Content



Sample Material	Digestion Acid
Glass	HNO ₃ /HF
Plastic	H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
Others	Any acid to total digestion.

2. Test for Chromium (VI) Content



***** To be continued *****

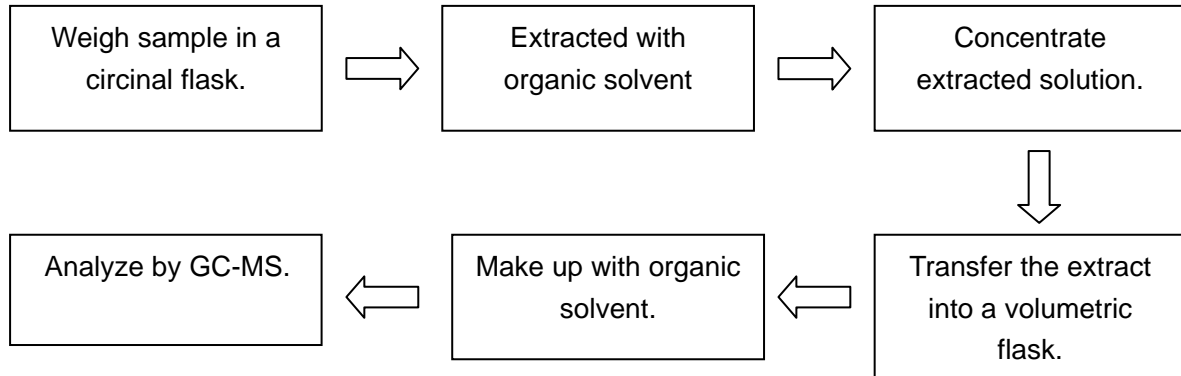
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3. Test for PBBs&PBDEs, Phthalates and HBCDD Content



SAMPLE PHOTO



***** To be continued *****

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The following information was submitted and identified by the client, only for reference.

UL1007, 1010, 1013, 1015, 1017, 1020, 1021, 1022, H05V-K, QVR1023, 1024, 1026, 10269, 1027, 1028, 1040, 1041, 1043, 1054, 1055, 1056, 1061, 1095, 1207, 1211, 1220, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1265, 1266, 1283, 1284, 1308, 1314, 1316, 1569, 1571, 1617, 1618, 1672, 10024, 10053, 10070, 10076, 10198, 2038, 2095, 2096, 2101, 2102, 2103, 2127, 2129, 2165, 2343, 20478, 2344, 2345, 2346, 2384, 2385, 2386, 2387, 2388, 2448, 2463, 20295, 2464, 2468, 2490, 2493, 2501, 2502, 2516, 2517, 2532, 2550, 20294, 2560, 2569, 2570, 2571, 2574, 2576, 2584, 2586, 2587, 2589, 20293, 2598, 2614, 2626, 2630, 2631, 2637, 2651, 2653, 2654, 2655, QVR, 2656, 2660, 2661, 2662, 2668, 2679, 2704, 2709, 2722, 2726, QFR, 2733, 2754, 2919, 2990, 20276, QB-A QB-B, 20480, 20482, 21014, 3476, 60227IEC08(RV-90), 60227IEC52(RVV), AVR, 60227IEC53(RVV), VDEWIRE, HDT, FLRY, STT, GPT, TWP, FLRYW-B, SGT, AV, AVS, AVSS, AVF, GB.AV.300/300V, GB.RVS.300/300V, TVSSX 1429, 1430, 1431, 3454, 3558, 3314, 3315, 3453, 3611, 3443, 5107, AVX, MTW, 16878/1C, 16878/2C, 16878/3C, 16878/17B, H07V-K, and PVC TUBE

***** **END OF REPORT** *****



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