



Test Report

No. 2321217-CH02

Date: March 16, 2011

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Samtec Inc.
520 Park East Blvd
New Albany, IN 47151
United States

Attn: Dick Bowyer

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

**Ribbon Cable – PVC Insulation – Copper
Conductors**
Color: Gray
Sample/Style #: Sample Labeled: IDSS-IDSD

Sample Received Date:

2/15/2011

Testing Period:

2/23/2011 – 3/16/2011

Test Requested : Please refer to the result summary.

Test Method & Results : Please refer to next page(s).

Result Summary :

Test Requested	Conclusion
European Directive 2002/95/EC (RoHS) and its subsequent amendments	PASS
Phthalates	FAIL

Signed for and on behalf of SGS North America

Prepared By:

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1. Test results by chemical method:

Cadmium, Lead, Mercury, Hexavalent Chromium, Polybromobiphenyl (PBB) and Polybromodiphenyl ether (PBDE) content

Method : With reference to IEC 62321:2008. Lead, Cadmium and Mercury were analyzed by Inductively Coupled Argon Plasma Spectrometry, Chromium (VI) was analyzed by UV-Visible Spectroscopy and PBB, PBDE were analyzed by Gas Chromatography – Mass Spectrometry (GC-MS).

Test Item	Result (mg/kg)		Detection Limit (mg/kg)	Permissible Limit (mg/kg)
	1	2		
Cadmium (Cd)	ND	ND	20	100
Lead (Pb)	ND	ND	20	1000
Mercury (Hg)	ND	ND	20	1000
Hexavalent Chromium by spot test (Cr(VI))	Negative; bubbles observed – boiling water test performed	ND*	#	#
Hexavalent Chromium by boiling water extraction (Cr(VI))	Negative for presence of Hexavalent Chromium	ND*	#	#
Sum of PBBs	ND	ND	--	1000
Monobromobiphenyl	ND	ND	5	--
Dibromobiphenyl	ND	ND	5	--
Tribromobiphenyl	ND	ND	5	--
Tetrabromobiphenyl	ND	ND	5	--
Pentabromobiphenyl	ND	ND	5	--
Hexabromobiphenyl	ND	ND	5	--
Heptabromobiphenyl	ND	ND	5	--
Octabromobiphenyl	ND	ND	5	--
Nonabromobiphenyl	ND	ND	5	--
Decabromobiphenyl	ND	ND	5	--
Sum of PBDEs	ND	ND	--	1000
Monobromodiphenyl ether	ND	ND	5	--
Dibromodiphenyl ether	ND	ND	5	--
Tribromodiphenyl ether	ND	ND	5	--
Tetrabromodiphenyl ether	ND	ND	5	--
Pentabromodiphenyl ether	ND	ND	5	--
Hexabromodiphenyl ether	ND	ND	5	--
Heptabromodiphenyl ether	ND	ND	5	--
Octabromodiphenyl ether	ND	ND	5	--
Nonabromodiphenyl ether	ND	ND	5	--
Decabromodiphenyl ether ##	ND	ND	5	--
Comment	PASS	PASS	--	--

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Sample Description:

1. Grey Insulation, Labeled IDSS-IDSD
2. Copper Conductor, Labeled IDSS-IDSD

**Total Chromium analysis by ICP-OES was not detected in submitted sample. Therefore, Hexavalent Chromium determination using UV-Visible Spectroscopy was not performed.*

Note :

1. MDL = Method Detection Limit
2. ND = Not Detected = denoted less than reporting limit

Remark : 1. # = Negative means the absence of CrVI on the tested areas; Positive means the presence of CrVI on the tested areas. The detected CrVI concentration in the boiling-water-extraction solution is equal to or greater than 0.02 mg/kg with 50cm² sample surface area.

2. Phthalates Content

Method: With reference to CPSC-CH-C1001-09.3. Analysis was performed by Gas Chromatography / Mass Spectrometry.

<u>Test item</u>	<u>1</u>	<u>Permissible Limit</u>
Dibutyl Phthalate (DBP)	ND	0.1%
Benzylbutyl Phthalate (BBP)	ND	0.1%
Bis-(2-ethylhexyl) Phthalate (DEHP)	0.014 %	0.1%
Diisononyl Phthalate (DINP)	0.526 %	0.1%
Di-n-Hexyl Phthalate (DnHP)	ND	0.1%
Di-n-octyl Phthalate (DNOP)	ND	0.1%
Diisodecyl Phthalate (DIDP)	0.061 %	0.1%
Conclusion	FAIL	---

Sample Description :

1. IDSS-IDSD

Note : 1. % = percentage by weight

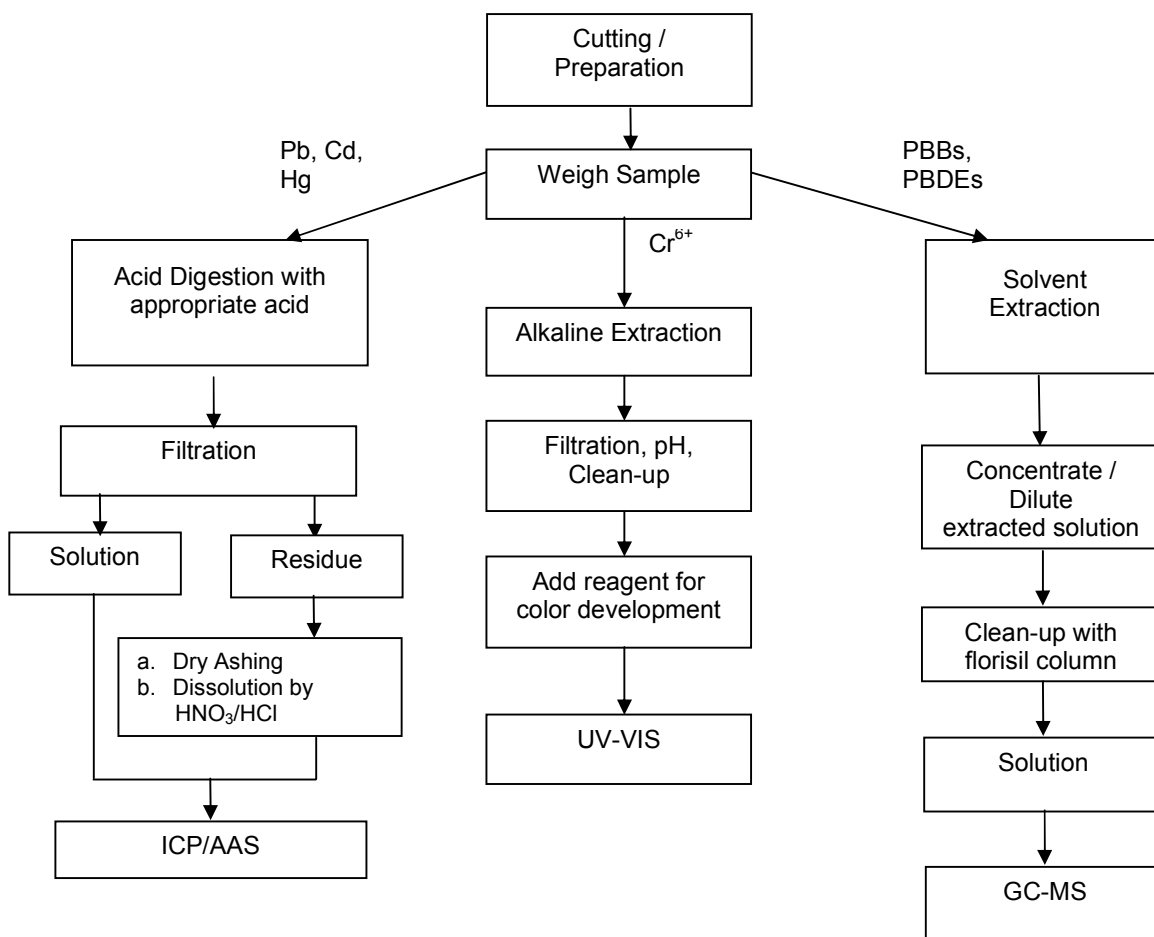
2. ND = not detected

3. Method Detection Limit for each of DBP, BBP, DEHP and DNOP = 0.003 % (0.015% by CPSC method)

4. Method Detection Limit for each of DINP and DIDP = 0.01 % (0.015% by CPSC method)

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Flowchart:



- Note : 1. For Cr(VI), spot test is adopted for metal sample.
 2. The Cd and Pb contents test on polymeric samples were dissolved totally by pre-conditioning method according to above flow chart.

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Sample Photo:



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*** End of Report ***

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