



# Test Report

Report No. A2200135749101010R2

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**Company Name** ZHEJIANG RECTRON ELECTRONIC CO.,LTD.  
**shown on Report**

**Address** 28# LIZHENG ROAD, HUIMIN DISTRICT,JIASHAN COUNTY, JIAXING  
CITY,ZHEJIANG PROVINCE, CHINA

**The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant**

Client Reference Information 0402/0603/1.5KE/A405/AKM/BDB/BR-10/BR-15W/BR-3/BR-6/BR-8/CSP/D2PAK/D3K/  
DB/DBLS/DBS/DFN5x6EP/DFN0603/DFN0603-2L/DFN1006/DFN1006-2/2L/DFN1006-3/3  
L/DFN1610/DFN2.6\*2.6-10L/DFN2\*2-3L/DFN2510/DFN2X2-6L/DFN3.3X3.3/DFN3x3/DF  
N4120-10L/DFN5x6/DFN5X6-8L/DFNWB0.6\*0.3/DI5/DO15/DO201AD/DO-213AB/  
DO218/DO218AB/DO277/DO34/DO35/DO41/DO41G/DPAK/TO252/ESOP-8/HR-MS/  
HVM/HVML/HVP/ITO220/ITO220A/ITO220AC/KBL/KBP/LL34/LL41/LMDS/MB-F/MB  
M/MDA/MDC/MDF/MDK/MDS/MDSJ/MELF/MICRO-MELF/MINI-MELF/MP-15/MP-15  
W/MP-25/MP-25W/MP-35/MP-35W/MP-40/MP-50/MP-50W/MSBM/MSBS/MSOP10/MT-3  
5/MT-35W/PDFN5X6P/PPAK3x3/PPAK5X6/PQFN2X2/R1/R10KH/R12KH/R16KH/R2/R3/  
R30KH/R4/R5/R6/R7/R8K/R9KH/RB-15/RBU/RBUH/RC-2/RS1/RS1L/RS10M/RS10MLS/  
RS15M/RS15MLS/RS1M/RS2/RS20M/RS20MLS/RS25M/RS25MLS/RS2L/RS2M/RS30M/  
RS35M/RS35TB/RS40M/RS-485/RS4L/RS4M/RS50M/RS6/RS6L/RS60M/RS6M/RS-6MLS/  
RS8/RS8L/RS8M/S35VB/S50VB/SBR/SC-75/SOT416/SKBPC/SLDBS/SlimPAQ/SLMDS/S  
LPDS/SMA (DO214AC) /SMAF/SMA-S/SMB (DO214AA) /SMBF/SMB-F/  
SMC (DO214AB) /SMX/SOD123/SOD123F/SOD123F(L)/SOD123F(L)-1/  
SOD123FH/SOD123FL/SOD123ST/SOD323/SOD323F/SOD523/SOD523F  
/SOD723/SOD80C/SOD882/SOD923/SOF2-4/SOP-8L/SOP-14/SOP-8/SOT143/SOT223/SO  
T223-2L/3L/SOT227/SOT23/SOT23-3L/SOT23-3S/SOT23-5/SOT236/SOT23-6/6L/SOT26/S  
OT323/SC70/SOT346/SOT363/SOT363-6L/SOT523/SOT563/SOT723/SOT883/SOT89/SOT  
89-3L/SSOD923/SSOT-6L/Sub-SMA/TO126/TO263/TO220/TO220-3L/TO220A/TO220A-1/  
TO220AB/TO220AC/TO220C/TO220F/TO220FAC/TO247/TO247-3L/TO247S/TO251/TO25  
2-5L/TO3P/TO92/TO92L/TO92S/TQFN16/TSOT23-5/TDFN  
2x2-6L/TSOT23-6L/TSSOP14/TSSOP-8/UDFN-3L/WBFBP-02C/WOM/X3DFN2/TO126/T  
O126F/TO262/TO252-4L/TO-3P/SOT89/SOD123FL-1

Sample Received Date

May 21, 2020

Testing Period

May 21, 2020 to May 27, 2020

**Test Requested**

As specified by client, to test Lead(Pb), Cadmium(Cd), Mercury(Hg),  
Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs),  
Polybrominated Diphenyl Ethers (PBDEs), Beryllium(Be), Antimony(Sb),  
Chlorine (Cl), Bromine (Br), Phthalates, asbestos in the submitted sample(s).

**Test Method/Test Result(s)**

Please refer to the following page(s).

Tested by

Reviewed by

Approved by

Date

Jul. 18, 2020

Chen kaimin

Lab Manager

No. R188381439

Centre Testing International Pinbiao(Shanghai) Co., Ltd.

No.1351, Wanfang Road, Minhang District, Shanghai, China

检验检测专用章  
Inspection & Testing Services

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**The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant**

Sample No.	Sample Name(s)	Material
001	Bonding Wire	Cu
002	Coating/Silicon Rubber	Si
003	Solder Paste	Pb、Sn、Ag
004	Solder Wafer	Pb、Sn、Ag
005	Plating	Sn
006	Lead Wire	Cu
007	Dice Wafer	Si
008	HF Molding	Epoxy

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## Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead(Pb)	IEC 62321-5:2013	ICP-OES
Cadmium(Cd)	IEC 62321-5:2013	ICP-OES
Mercury(Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
Hexavalent Chromium(Cr(VI))	IEC 62321-7-1:2015	UV-Vis
	IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
Polybrominated Biphenyls(PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS
Beryllium(Be)	Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP-OES
	Refer to US EPA 3052:1996 & US EPA 6010D:2018	
Antimony(Sb)	Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP-OES
	Refer to US EPA 3052:1996 & US EPA 6010D:2018	
Chlorine (Cl)	Refer to EN 14582:2016	IC
Bromine (Br)	Refer to EN 14582:2016	IC
Phthalates	IEC 62321-8:2017	GC-MS
Asbestos	ISO 22262-1:2012、NIOSH 9000:2015、NIOSH 9002:1994	PLM+XRD

## Test Result(s)

Tested Item(s)	Result			MDL
	001	002	003	
Lead (Pb)	N.D.	N.D.	$8.25 \times 10^5$ mg/kg *	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	--	N.D.	N.D.	8 mg/kg
	N.D. ▼	--	--	0.10 $\mu\text{g}/\text{cm}^2$ (LOQ)

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Tested Item(s)	Result			MDL
	004	005	006	
Lead (Pb)	9.11 × 10 <sup>5</sup> mg/kg *	32 mg/kg	27 mg/kg	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	--	--	--	8 mg/kg
	N.D.▼	N.D.▼	N.D.▼	0.10 µg/cm <sup>2</sup> (LOQ)

Tested Item(s)	Result		MDL
	007	008	
Lead (Pb)	1062 mg/kg* <sup>2</sup>	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	N.D.	8 mg/kg
	--	--	0.10 µg/cm <sup>2</sup> (LOQ)

Tested Item(s)	Result			MDL
	001	002	003	
<b>Polybrominated Biphenyls(PBBs)</b>				
Monobromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg

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Tested Item(s)	Result			MDL
	004	005	006	
<b>Polybrominated Biphenyls(PBBs)</b>				
Monobromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	N.D.	N.D.	5 mg/kg

Tested Item(s)	Result		MDL
	007	008	
<b>Polybrominated Biphenyls(PBBs)</b>			
Monobromobiphenyl	N.D.	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	N.D.	5 mg/kg

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Tested Item(s)	Result			MDL
	001	002	003	
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>				
Monobromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg

Tested Item(s)	Result			MDL
	004	005	006	
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>				
Monobromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	N.D.	5 mg/kg

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Tested Item(s)	Result		MDL
	007	008	
<b>Polybrominated Diphenyl Ethers (PBDEs)</b>			
Monobromodiphenyl ether	N.D.	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	N.D.	5 mg/kg

Tested Item(s)	Result			MDL
	001	002	003	
<b>Phthalates (DBP, BBP, DEHP, DIBP)</b>				
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg

Tested Item(s)	Result			MDL
	004	005	006	
<b>Phthalates (DBP, BBP, DEHP, DIBP)</b>				
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg

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Tested Item(s)	Result		MDL
	007	008	
<b>Phthalates (DBP, BBP, DEHP, DIBP)</b>			
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	50 mg/kg

Tested Item(s)	Result			MDL
	001	004	005	
Beryllium (Be)	N.D.	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result		MDL
	003	006	
Beryllium (Be)	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result			MDL
	001	004	005	
Antimony (Sb)	N.D.	4996 mg/kg	N.D.	10 mg/kg

Tested Item(s)	Result		MDL
	007	008	
Antimony (Sb)	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result			MDL
	002	003	006	
Antimony (Sb)	N.D.	N.D.	N.D.	10 mg/kg



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Tested Item(s)	Result			MDL
	002	007	008	
Chlorine (Cl)	N.D.	N.D.	140 mg/kg	10 mg/kg
Bromine (Br)	N.D.	N.D.	N.D.	10 mg/kg

Tested Item(s)	Result			MDL
	001	002	003	
<b>Phthalates</b>				
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg
Di-n-hexyl phthalate (DNHP) CAS#:84-75-3	N.D.	N.D.	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg
Dipentyl phthalate (DPP) CAS#:131-18-0	N.D.	N.D.	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	N.D.	N.D.	50 mg/kg
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	N.D.	N.D.	50 mg/kg
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	N.D.	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg
Diisopentylphthalate (DIPP) CAS#:605-50-5	N.D.	N.D.	N.D.	50 mg/kg
N-Pentyl-isopentyl phthalate (NIPP) CAS#:776297-69-9	N.D.	N.D.	N.D.	100 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	N.D.	N.D.	N.D.	50 mg/kg

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Tested Item(s)	Result			MDL
	004	005	006	
<b>Phthalates</b>				
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	N.D.	50 mg/kg
Di-n-hexyl phthalate (DNHP) CAS#:84-75-3	N.D.	N.D.	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	N.D.	50 mg/kg
Dipentyl phthalate (DPP) CAS#:131-18-0	N.D.	N.D.	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	N.D.	50 mg/kg
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	N.D.	N.D.	50 mg/kg
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	N.D.	N.D.	50 mg/kg
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	N.D.	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	N.D.	50 mg/kg
Diisopentylphthalate (DIPP) CAS#:605-50-5	N.D.	N.D.	N.D.	50 mg/kg
N-Pentyl-isopentyl phthalate (NIPP) CAS#:776297-69-9	N.D.	N.D.	N.D.	100 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	N.D.	N.D.	N.D.	50 mg/kg

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Tested Item(s)	Result		MDL
	007	008	
<b>Phthalates</b>			
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	N.D.	50 mg/kg
Di-n-hexyl phthalate (DNHP) CAS#:84-75-3	N.D.	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	N.D.	50 mg/kg
Dipentyl phthalate (DPP) CAS#:131-18-0	N.D.	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	N.D.	50 mg/kg
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	N.D.	50 mg/kg
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	N.D.	50 mg/kg
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	N.D.	50 mg/kg
Diisopentylphthalate (DIPP) CAS#:605-50-5	N.D.	N.D.	50 mg/kg
N-Pentyl-isopentyl phthalate (NIPP) CAS#:776297-69-9	N.D.	N.D.	100 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	N.D.	N.D.	50 mg/kg

Material Category	Substances/CAS Numbers	Results	
		001	002
Asbestos (CAS 1332-21-4)	Chrysotile/12001-29-5	N.A.D.	N.A.D.
	Crocidolite/ 12001-28-4	N.A.D.	N.A.D.
	Amosite (Grunerite)/ 12172-73-5	N.A.D.	N.A.D.
	Fibrous Tremolite/ 77536-68-6	N.A.D.	N.A.D.
	Fibrous Actinolite/ 77536-66-4	N.A.D.	N.A.D.
	Fibrous Anthophyllite/ 77536-67-5	N.A.D.	N.A.D.

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Material Category	Substances/CAS Numbers	Results	
		003	004
Asbestos (CAS 1332-21-4)	Chrysotile/12001-29-5	N.A.D.	N.A.D.
	Crocidolite/ 12001-28-4	N.A.D.	N.A.D.
	Amosite (Grunerite)/ 12172-73-5	N.A.D.	N.A.D.
	Fibrous Tremolite/ 77536-68-6	N.A.D.	N.A.D.
	Fibrous Actinolite/ 77536-66-4	N.A.D.	N.A.D.
	Fibrous Anthophyllite/ 77536-67-5	N.A.D.	N.A.D.

Material Category	Substances/CAS Numbers	Results	
		005	006
Asbestos (CAS 1332-21-4)	Chrysotile/12001-29-5	N.A.D.	N.A.D.
	Crocidolite/ 12001-28-4	N.A.D.	N.A.D.
	Amosite (Grunerite)/ 12172-73-5	N.A.D.	N.A.D.
	Fibrous Tremolite/ 77536-68-6	N.A.D.	N.A.D.
	Fibrous Actinolite/ 77536-66-4	N.A.D.	N.A.D.
	Fibrous Anthophyllite/ 77536-67-5	N.A.D.	N.A.D.

Material Category	Substances/CAS Numbers	Results	
		007	008
Asbestos (CAS 1332-21-4)	Chrysotile/12001-29-5	N.A.D.	N.A.D.
	Crocidolite/ 12001-28-4	N.A.D.	N.A.D.
	Amosite (Grunerite)/ 12172-73-5	N.A.D.	N.A.D.
	Fibrous Tremolite/ 77536-68-6	N.A.D.	N.A.D.
	Fibrous Actinolite/ 77536-66-4	N.A.D.	N.A.D.
	Fibrous Anthophyllite/ 77536-67-5	N.A.D.	N.A.D.

## Sample/Part Description

- 001 Cupreous metal wire
- 002 White paste (dry weight)\*<sup>1</sup>
- 003 Grey paste (dry weight)\*<sup>1</sup>
- 004 Silvery metal
- 005 Silvery metal
- 006 Cupreous metal
- 007 Dice wafer
- 008 Black solid

# Test Report

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**Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Beryllium, Antimony.**

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL or LOQ)

-mg/kg = ppm = parts per million

-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10  $\mu\text{g}/\text{cm}^2$

- $\nabla$ The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10  $\mu\text{g}/\text{cm}^2$ . The coating is considered a non-Cr(VI) based coating.

-N.A.D.= No Asbestos Detected(<Limit of detection)

-\*= According to the client's statement, the material of the sample(s) fall into exemption items 7(a) according to EU Directive 2011/65/EU: Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead), Testing results are only used for reference.

-\*<sup>1</sup>=The sample was tested after drying for 2 hours under 105°C.

-\*<sup>2</sup>= According to the client's statement, the material of the sample(s) fall into exemption items 7(c)-I according to EU Directive 2011/65/EU: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

**Note: This testing report added Remark "According to the client's statement, the material of the sample(s) fall into exemption items 7(c)-I according to EU Directive 2011/65/EU: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound."based on the original report of No. A2200135749101010R1. This testing report displaces the original one which was invalid since the date of this testing report released.**

## Statement of Compliance

-The limit of detection of this method is defined as the detection and identification of one fibre or fibre bundle in the amount of sample examined. With appropriate matrix reduction procedures that are tailored to the nature of the sample, the limit of detection can be significantly lower than 0.1%.

-The estimated concentration(s) of the asbestos varieties detected in ranges is/are as follows: Trace (<0.1%), 0.1%~5%, 5%~50%, and 50%~100%.

-CTI Asbestos Testing Center has established strict quality assurance and supervision procedures in accordance with international standard. And the laboratory participates in the AIMS\* every year (three times per year) to confirm our proficiency.

-Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarized light microscopy. These materials often contain milled asbestos with too small fibre diameter and length to be detected.

-X-ray diffraction analysis cannot discriminate the particle shape in analytical sample and detects not only asbestos of fibrous form but also non-fibrous minerals related to asbestos such as serpentine minerals and/or amphibole minerals if they coexist.

\*The Asbestos in Materials Scheme (AIMS) is an international inter-laboratory testing scheme, and it is managed by the Health and Safety Laboratory (HSL) which on behalf of the Health and Safety Executive (HSE) of UK

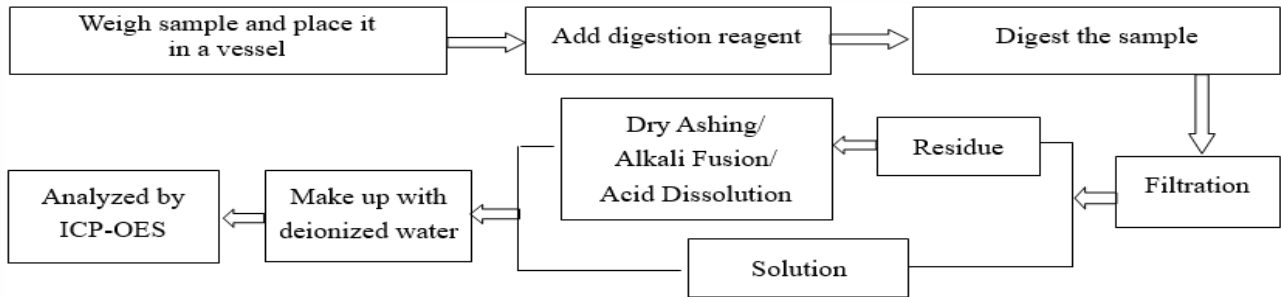
# Test Report

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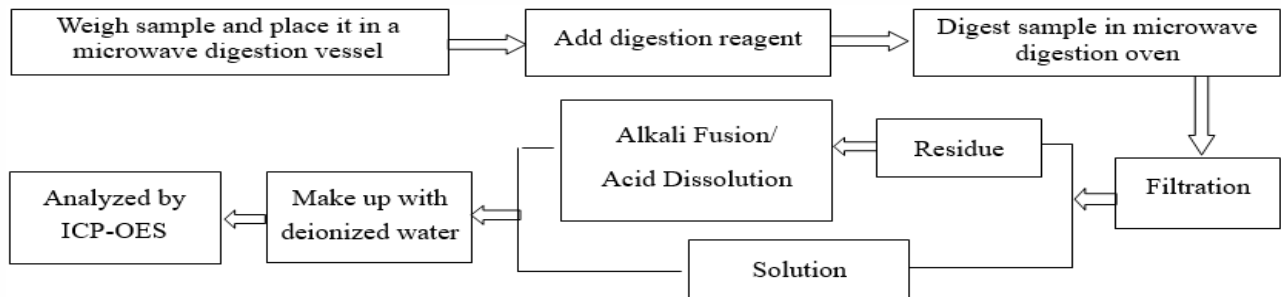
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## Test Process

### 1. Lead(Pb), Cadmium(Cd), Chromium(Cr)

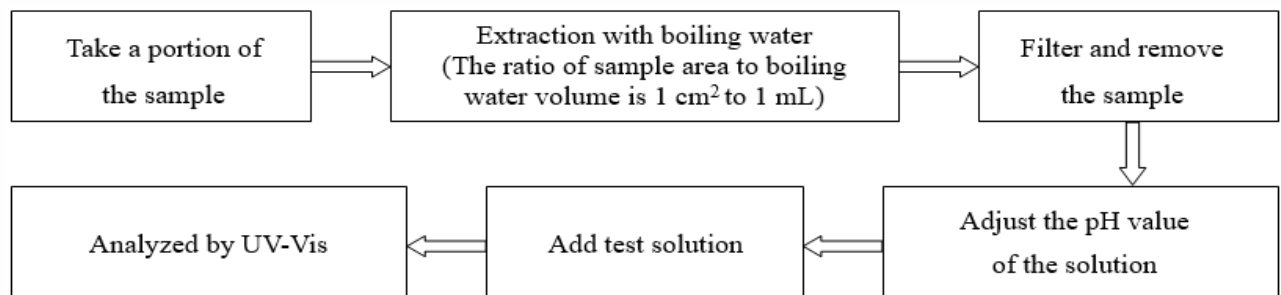


### 2. Mercury(Hg)

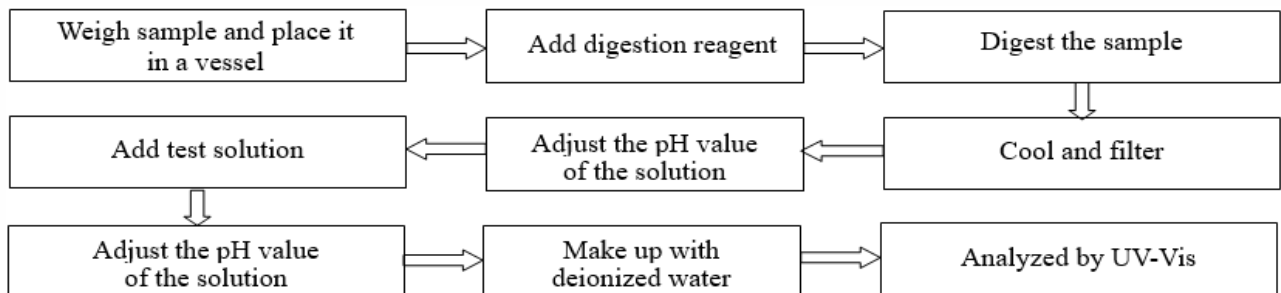


### 3. Hexavalent Chromium(Cr(VI))

#### (1) IEC 62321-7-1:2015



#### (2) IEC 62321-7-2:2017

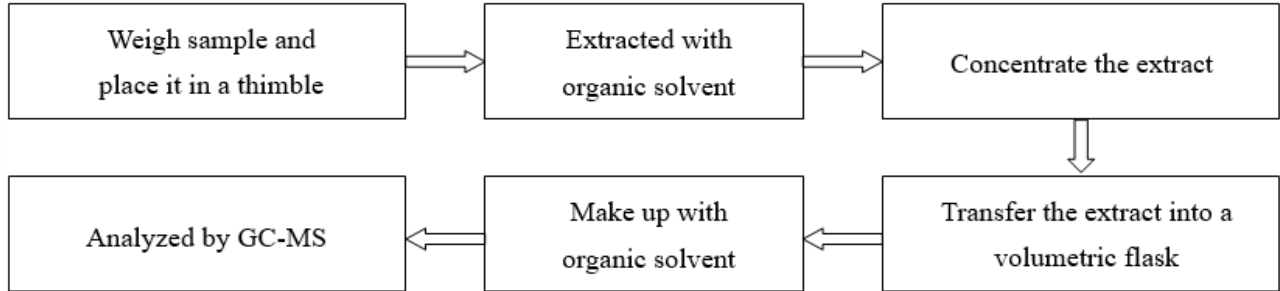


# Test Report

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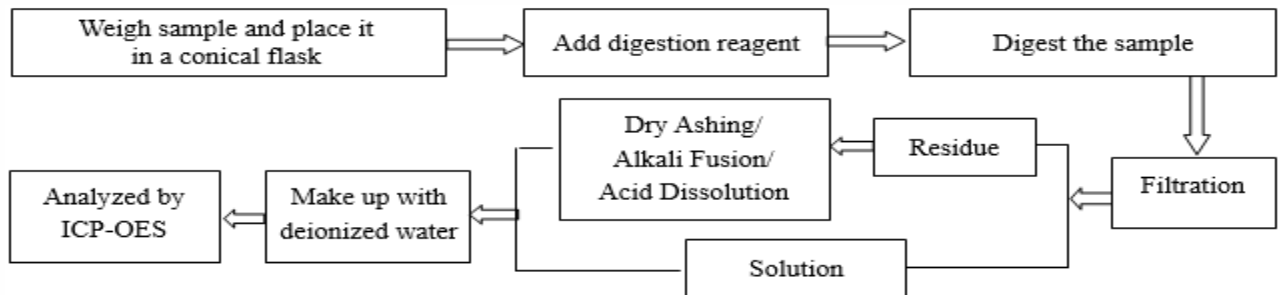
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## 4. Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers (PBDEs)

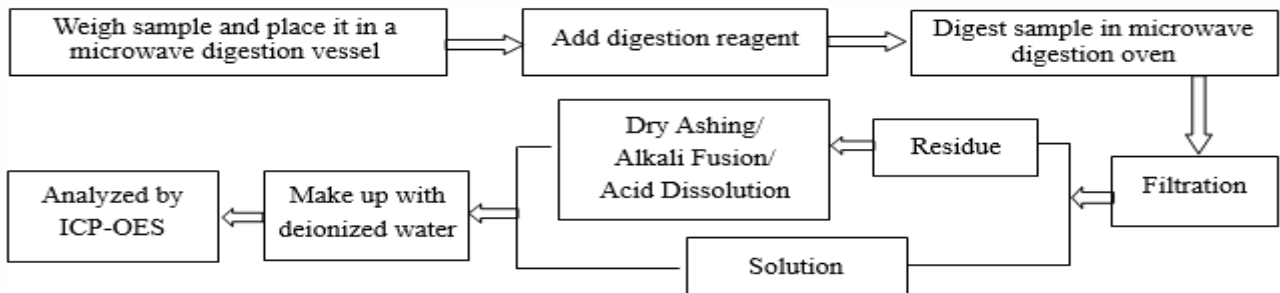


## 5. Beryllium(Be), Antimony(Sb)

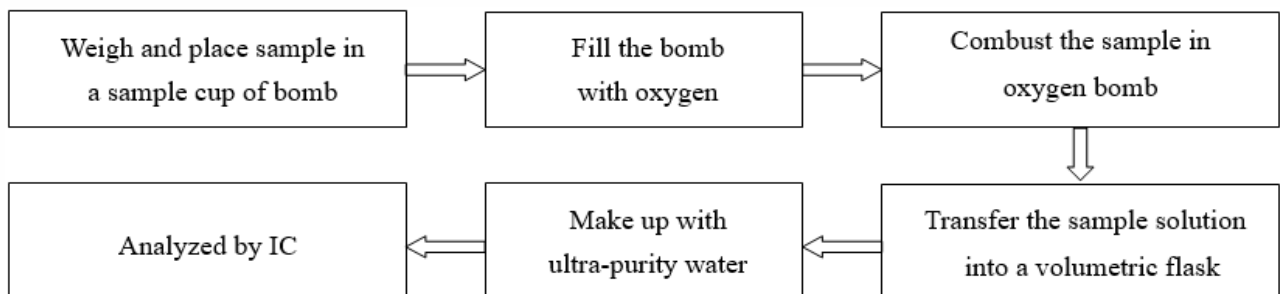
(1) Refer to US EPA 3050B:1996 & US EPA 6010D:2018



(2) Refer to US EPA 3052:1996 & US EPA 6010D:2018



## 6. Chlorine (Cl), Bromine (Br)

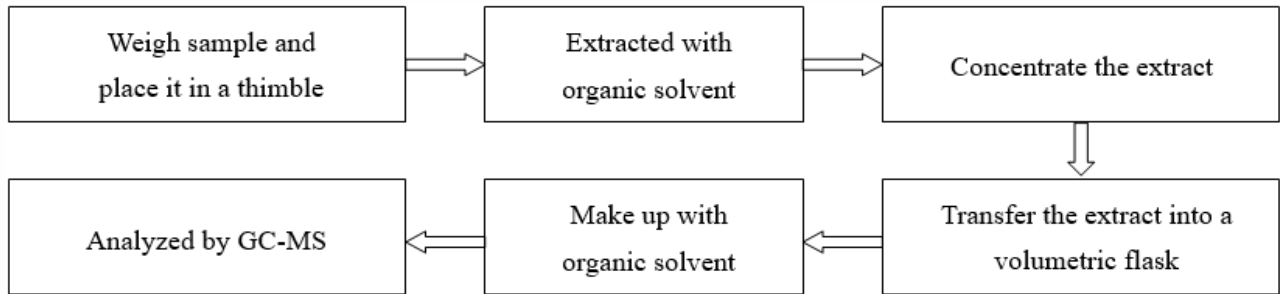


# Test Report

Report No. A2200135749101010R2

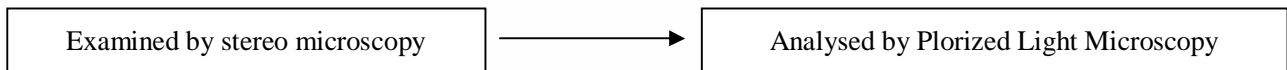
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## 7. Phthalates

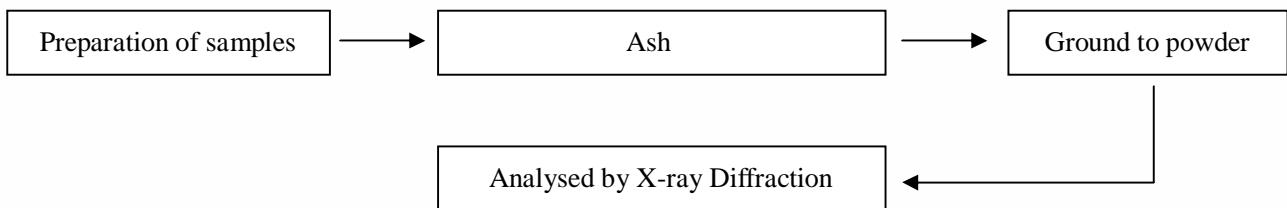


## 8. Asbestos

### PLM



### XRD





# Test Report

Report No. A22001357491010R2

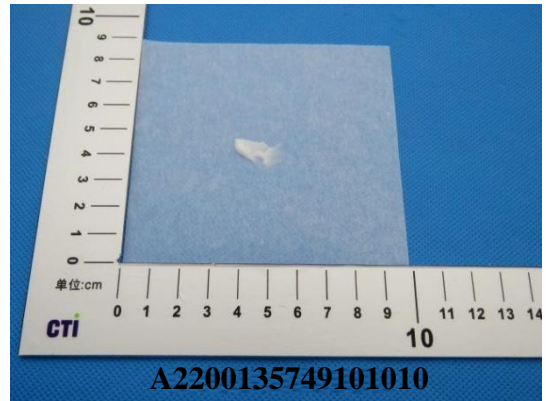
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## Photo(s) of the sample(s)

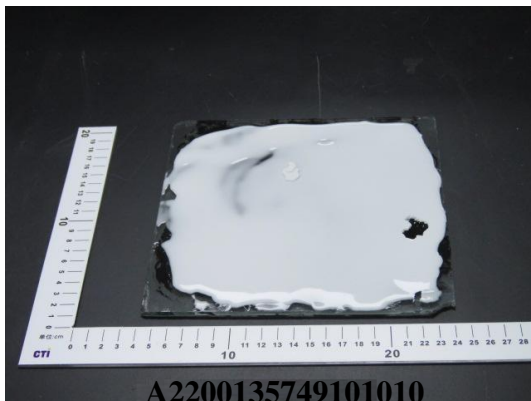
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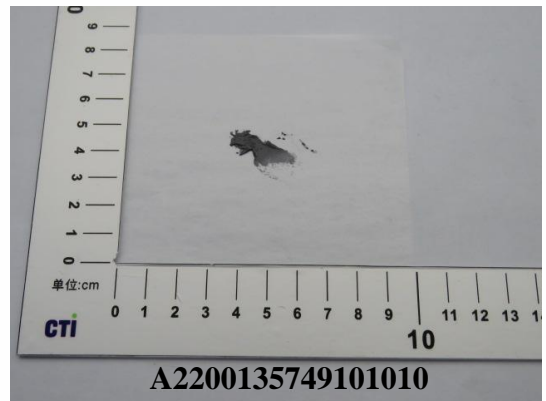
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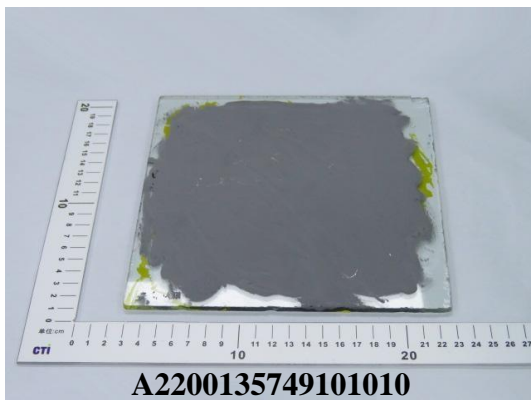
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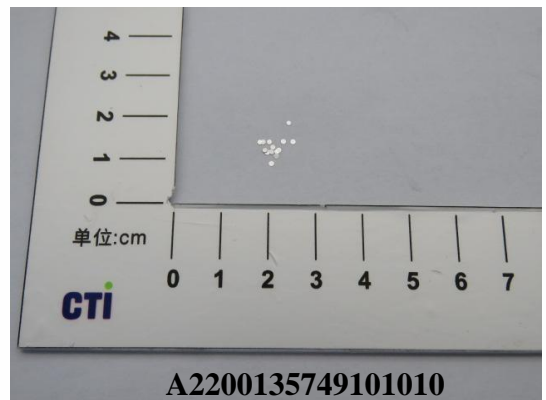
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003



004



# Test Report

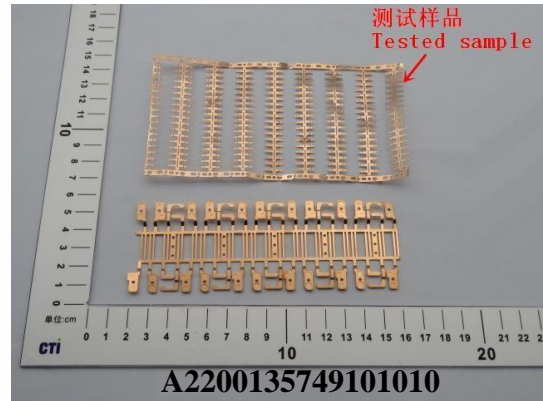
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005



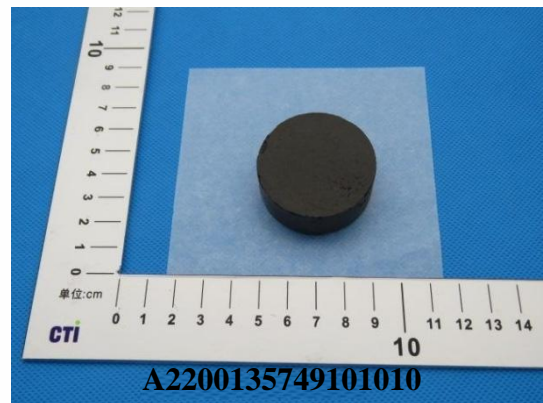
006



007



008



## Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. Company Name and Address shown on Report, the sample(s) and sample Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Without written approval of CTI, this report can't be reproduced except in full;
5. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

\*\*\* End of Report \*\*\*