

## Test Report

No.: CANEC23014671401

Date: Nov 30, 2023

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Client Name: 3F ELECTRONICS INDUSTRY CORP., LTD

Client Address: NO.5, ZHENXING ROAD, LIYUHE INDUSTRY PARK, LOUCUN VILLAGE, GONGMING STREET, GUANGMING NEW DISTRICT, SHENZHEN, GUANGDONG, CHINA

Sample Name: XLPO wire and cable

Model No.: UL3321 16AWG black

Client Ref. Information: Please see Attachment

The above sample(s) and information were provided by the client.

SGS Job No.: SZP23-028793

Sample Receiving Date: Nov 22, 2023

Testing Period: Nov 22, 2023 ~ Nov 28, 2023

Test Requested: Select test(s) as requested by the client.

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

Test Result(s): Please refer to next page(s).

Test Requirement	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass

Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

*Annie Ren*

Annie Ren  
Approved Signatory

scan to see the report



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Guangzhou Branch Technical Services Co., Ltd. Guangzhou Branch

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**Test Result(s):**

Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	CAN23-0146714-0001.C001	Black plastic jacket

Remarks:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

**EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)**

Test Method: With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 and IEC 62321-8:2017, analysis was performed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A1
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
Polybromobiphenyl (PBBs)	1000	mg/kg	-	ND
Monobromobiphenyl (MonoBB)	-	mg/kg	5	ND
Dibromobiphenyl (DiBB)	-	mg/kg	5	ND
Tribromobiphenyl (TriBB)	-	mg/kg	5	ND
Tetrabromobiphenyl (TetraBB)	-	mg/kg	5	ND
Pentabromobiphenyl (PentaBB)	-	mg/kg	5	ND
Hexabromobiphenyl (HexaBB)	-	mg/kg	5	ND
Heptabromobiphenyl (HeptaBB)	-	mg/kg	5	ND
Octabromobiphenyl (OctaBB)	-	mg/kg	5	ND
Nonabromobiphenyl (NonaBB)	-	mg/kg	5	ND
Decabromobiphenyl (DecaBB)	-	mg/kg	5	ND
Polybromodiphenyl ether (PBDEs)	1000	mg/kg	-	ND
Monobromodiphenylether (MonoBDE)	-	mg/kg	5	ND
Dibromodiphenylether (DiBDE)	-	mg/kg	5	ND
Tribromodiphenylether (TriBDE)	-	mg/kg	5	ND
Tetrabromodiphenylether (TetraBDE)	-	mg/kg	5	ND
Pentabromodiphenylether (PentaBDE)	-	mg/kg	5	ND
Hexabromodiphenylether (HexaBDE)	-	mg/kg	5	ND
Heptabromodiphenylether (HeptaBDE)	-	mg/kg	5	ND
Octabromodiphenylether (OctaBDE)	-	mg/kg	5	ND
Nonabromodiphenylether (NonaBDE)	-	mg/kg	5	ND
Decabromodiphenylether (DecaBDE)	-	mg/kg	5	ND
Dibutyl Phthalate (DBP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate (BBP)	1000	mg/kg	50	ND



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Test Item(s)	Limit	Unit(s)	MDL	A1
Bis-(2-ethylhexyl) Phthalate(DEHP)	1000	mg/kg	50	ND
Diisobutyl Phthalate(DIBP)	1000	mg/kg	50	ND

**Notes:**

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ( $w=0$ ) stated in ILAC-G8:09/2019.



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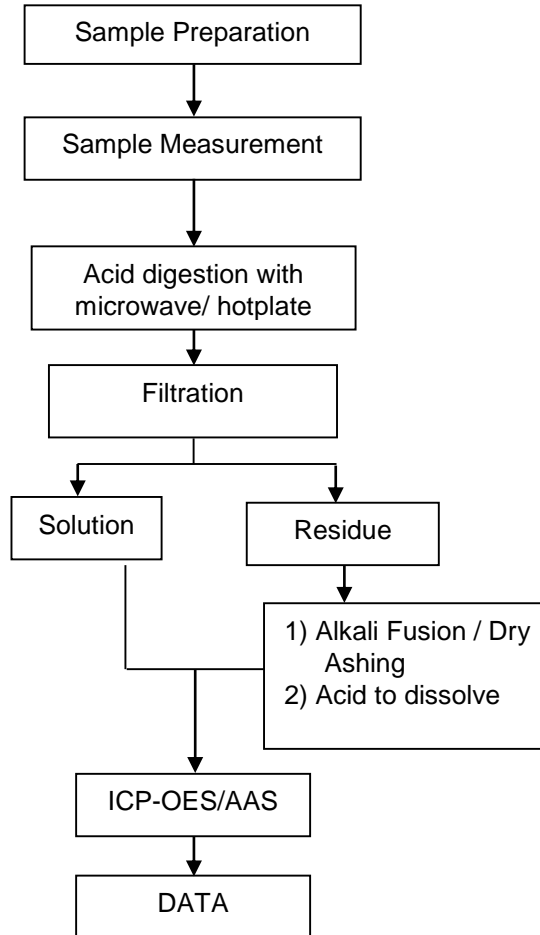
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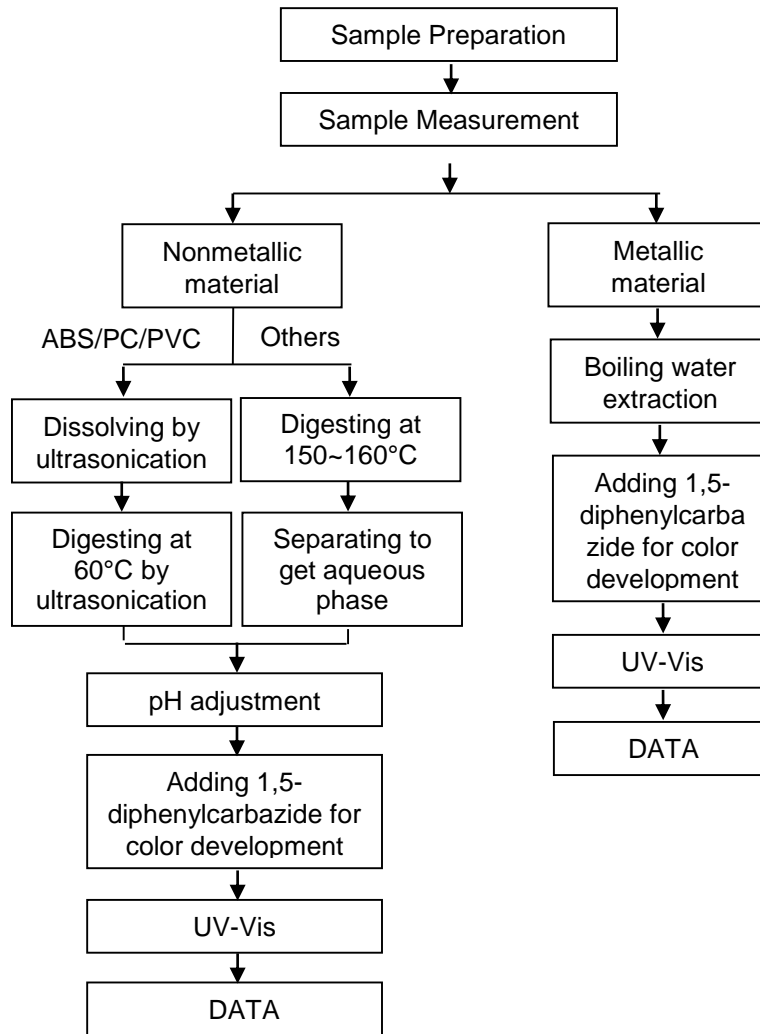
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### Elements Testing Flow Chart

These samples were dissolved totally by pre-conditioning method according to below flow chart.

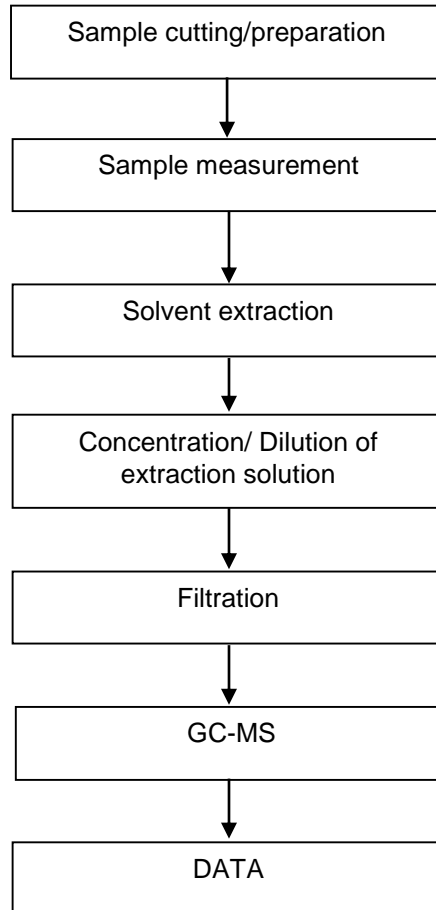


**Hexavalent Chromium (Cr(VI)) Testing Flow Chart**





### PBBs/PBDEs Testing Flow Chart



### Phthalates Testing Flow Chart



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### Attachment:

1385、1505、1764、2679、3194、3195、3196、3199、3302、3312、3368、3376、3377、3385、  
3456、3463、3464、3564、3167、3173、3182、3236、3265、3266、3271、3288、HP3239、  
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3472、3473、3485、3491、3492、3505、3569、3584、3596、3597、3598、3599、3613、3633、  
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3816、3817、10267、QFR-10634、QFR-11092、FLR12Y、FLR13Y、QB-C、QB-D、FL2X、  
FLR2X、FLR31Y、FLU2X-A、WXC、HDPE、FL2Y、QFR-0815、QFR-125、GXL、SXL、TXL、  
SGX、GPTH、JYJ-125、JYJ-150、AEX、AESSX、H05Z-K、H07Z-K、QFR-0818、QFR-1011、  
QFR-1412、QFR-1920、WDZ-YJY、QFR-1920、JET3173、JET3266、JET3385、JET3386、  
JET10368、MIL-W-81044-6、MIL-W-81044-12、16878-10E、16878-14B、16878-15B、  
16878-16C、QBJ-C、DCEK、CHFUS、EV、FHLR9Y、FLALR2X、T3、FL42X、E-105/T、TX、  
TY、YN/XLPO 150V,300V,600V; E-125/TX、TY、YN/XLPO 150V,300V,600V; E-150/TX、  
TY,TN/XLPO 150V,300V,600V; CQC XLPE WIRE AND XLPE TUBE AND XLPE WIRE AND  
CABLE SERIES



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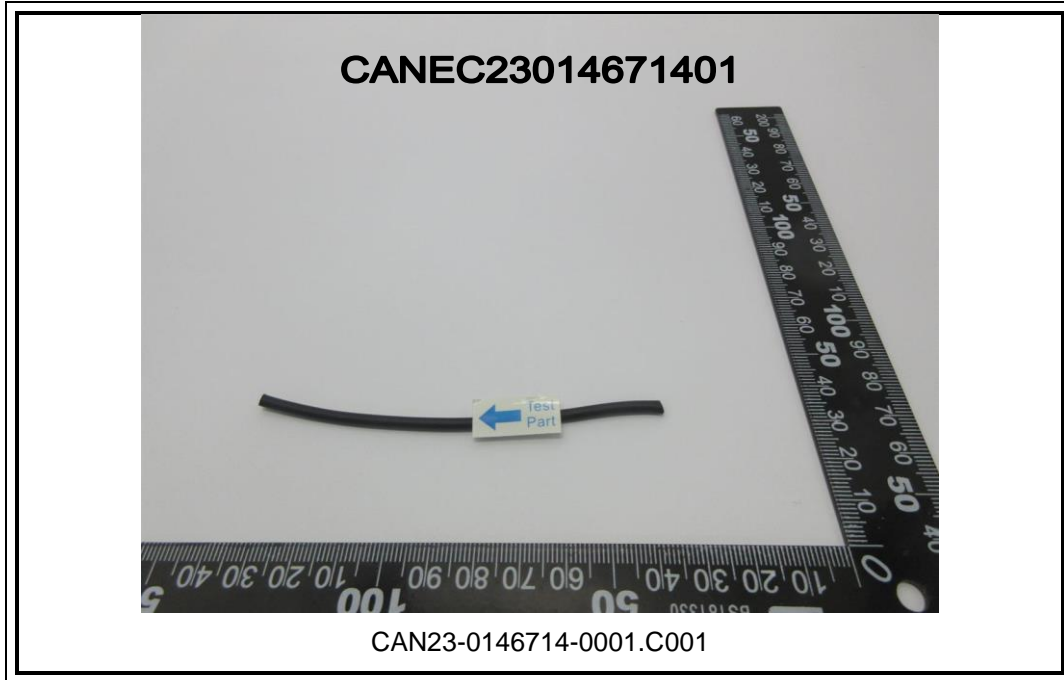
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Sample Photo:



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



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