

TEST REPORT

Report No. : MAN:EE:8550001504

DATE : 01/12/2017



G K WINDING WIRES LIMITED

B-20 UPSIDC INDUSTRIAL AREA SITE-C

NOIDA-201301

INDIA

CONTACT PERSON MR. ANURAG CHAUDHARY

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS :

SAMPLE DESCRIPTION ENAMELED COPPER WIRE

MATERIAL COPPER

COUNTRY OF ORIGIN INDIA

SAMPLE RECD ON 23/11/2017

TESTING PERIOD : 24/11/2017 - 01/12/2017

TEST(S) REQUESTED ROHS 6E

CONCLUSION : Based on the performed tests on submitted sample(s), the results of Cadmium, Lead, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) **comply** with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Per Pro SGS India Pvt Ltd.

Authorized Signatory

Kapil Patil

(Asst. Manager- Chemical)

Email your Test Report Related Enquiries at Feedback.HLT@sgs.com

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Test Part Description:

Product No.	Sample No.	Material Description	Remarks
-	1	Metal	-

Remarks:

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

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method:

- (1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
- (2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
- (3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
- (4) With reference to IEC 62321-7-2:2017, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis and/or with reference to IEC 62321-5:2013, determination of Chromium by ICP-OES.
- (5) With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.

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Test result:

Test Item(s):	Unit	Results	MDL	Limit
		Sample -1		
Cadmium(Cd)	mg/kg	n.d.	5	100
Lead (Pb)	mg/kg	17.4	5	1000
Mercury (Hg)	mg/kg	n.d.	5	1000
Hexavalent Chromium (Cr(VI)) [▼]	µg/cm ²	n.d.	0.10	--
Sum of PBBs	mg/kg	n.d.	-	1000
Monobromobiphenyl	mg/kg	n.d.	50	-
Dibromobiphenyl	mg/kg	n.d.	50	-
Tribromobiphenyl	mg/kg	n.d.	50	-
Tetrabromobiphenyl	mg/kg	n.d.	50	-
Hexabromobiphenyl	mg/kg	n.d.	50	-
Pentabromobiphenyl	mg/kg	n.d.	50	-
Heptabromobiphenyl	mg/kg	n.d.	50	-
Octabromobiphenyl	mg/kg	n.d.	50	-
Nonabromobiphenyl	mg/kg	n.d.	50	-
Decabromobiphenyl	mg/kg	n.d.	50	-
Sum of PBDEs	mg/kg	n.d.	-	1000
Monobromodiphenyl ether	mg/kg	n.d.	50	-
Dibromodiphenyl ether	mg/kg	n.d.	50	-
Tribromodiphenyl ether	mg/kg	n.d.	50	-
Tetrabromodiphenyl ether	mg/kg	n.d.	50	-
Pentabromodiphenyl ether	mg/kg	n.d.	50	-
Hexabromodiphenyl ether	mg/kg	n.d.	50	-
Heptabromodiphenyl ether	mg/kg	n.d.	50	-
Octabromodiphenyl ether	mg/kg	n.d.	50	-
Nonabromodiphenyl ether	mg/kg	n.d.	50	-
Decabromodiphenyl ether	mg/kg	n.d.	50	-

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Notes:

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863. IEC 62321 series is equivalent to EN 62321 series

http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25

- (2) ▼ = a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 µg/cm². The sample coating is considered to contain Cr(VI)
b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10 µg/cm²). The coating is considered a non-Cr(VI) based coating
c. The result between 0.10 µg/cm² and 0.13 µg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

- (2) Test has been performed as per client's request.

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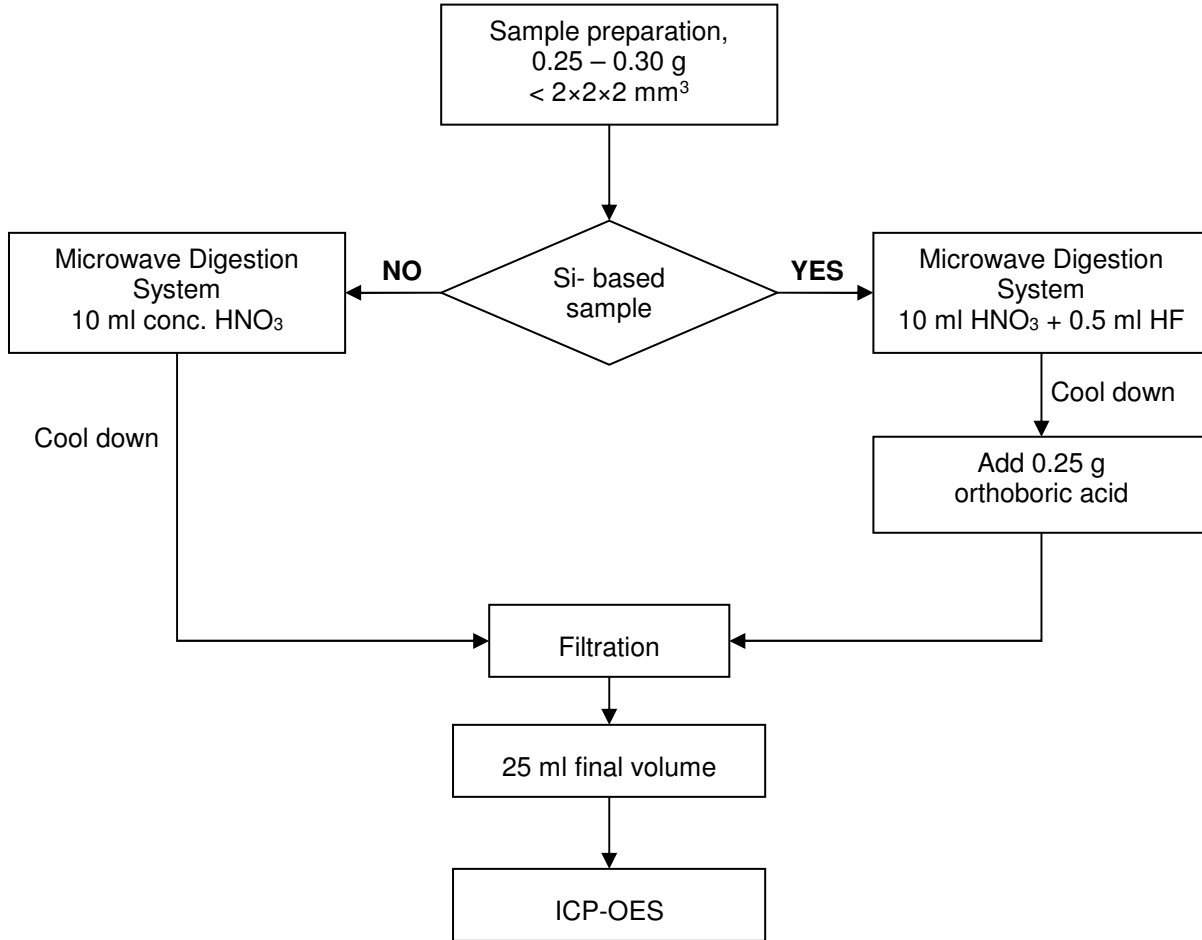
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Process Flow for analysis of metal contents in plastics, metals and electronic components sample



Analyzed By : Saurabh Kumar

Checked By : Kapil Patil

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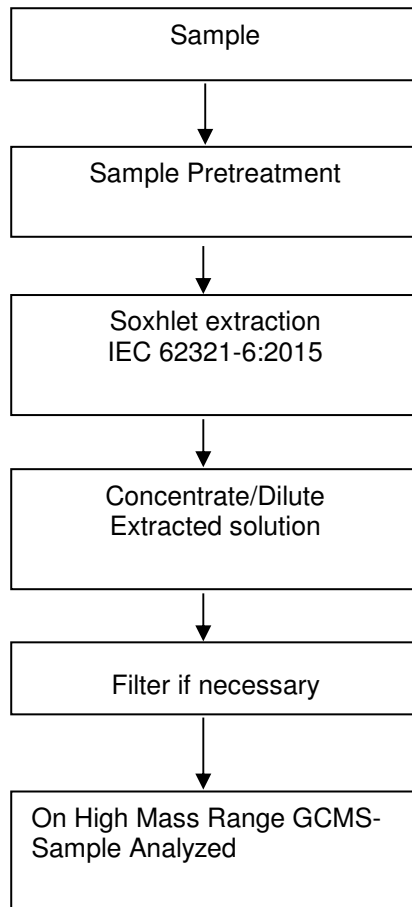
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Process Flow for analysis of Flame Retardants in plastics, metals and electronic components sample



Analyzed By : Sabir Khan

Checked By : Kapil Patil

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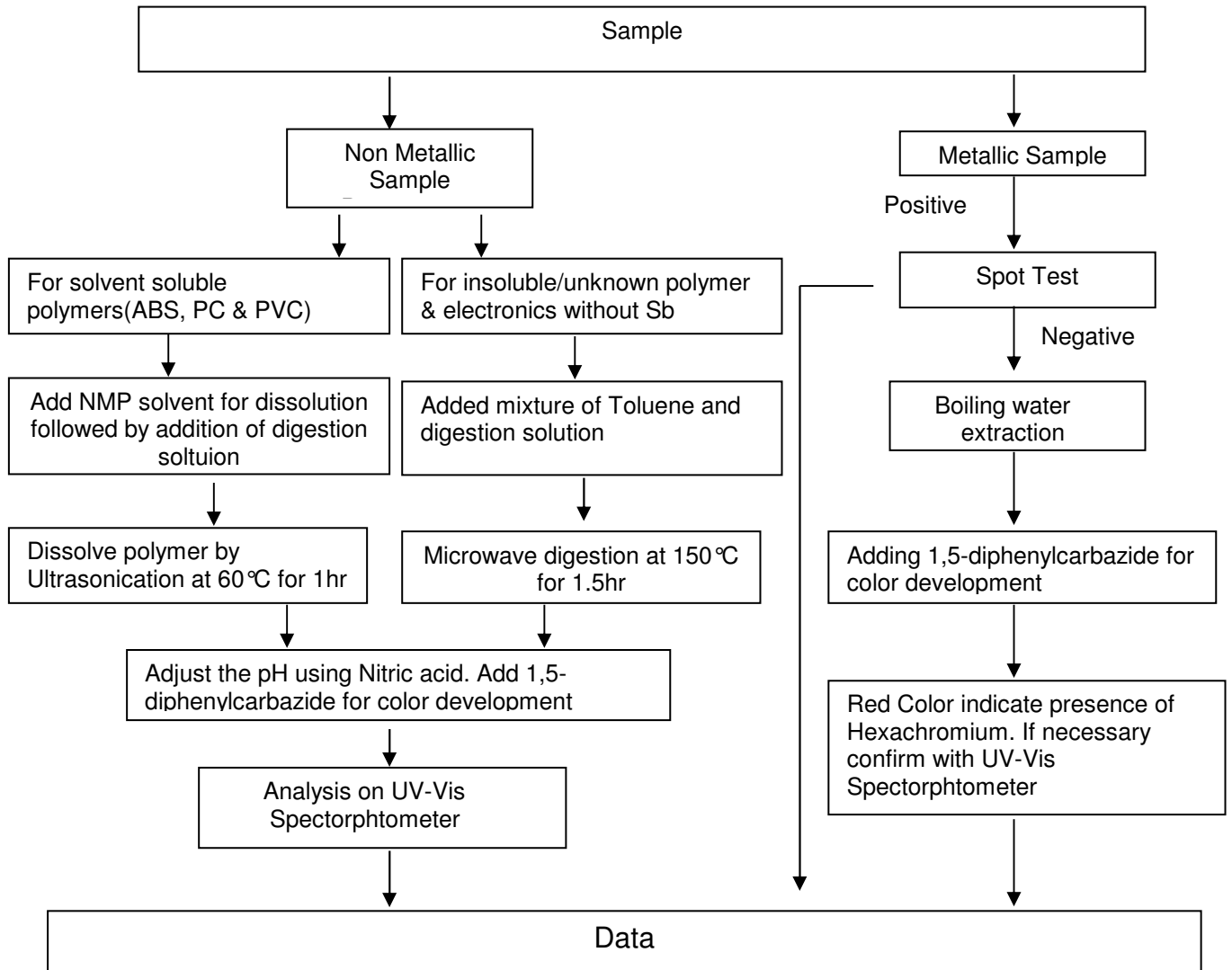
TEST REPORT

Report No. : MAN:EE:8550001504

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Process Flow for analysis of Hexachromium contents in plastics, metals and electronic components sample



Analyzed By : Ankur Tripathi

Checked By : Kapil Patil

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Sample Photo: as received



SGS authenticate the photo on original report only

*** End of Report ***

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