

Test Report

No. SHAEC1307254213 A01

Date: 22 May 2013

Page 1 of 6

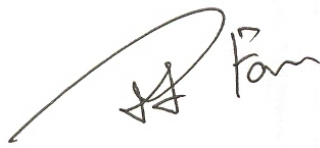
SHANGHAI BAOSHAN IRON&STEEL CO.,LTD
NO.1800 TONGJI ROAD, BAOSHAN, SHANGHAI, CHINA

THIS REPORT IS TO SUPERSEDE TEST REPORT NO.SHAEC1307254213 DATE: 2013/05/13

The following sample(s) was/were submitted and identified on behalf of the clients as : ORIENTED ELECTRICAL STEEL STRIP,INSULATION COATING S

SGS Job No. : SP13-011722 - SH
Date of Sample Received : 26 Apr 2013
Testing Period : 26 Apr 2013 - 06 May 2013
Test Requested : Selected test(s) as requested by client.
Test Method : Please refer to next page(s).
Test Results : Please refer to next page(s).
Conclusion : Based on the performed tests on selected part of submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium comply with the limits in RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of
SGS-CSTC Ltd.



JJ Fan
Approved Signatory

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	SHA13-072542.011	Grey-silvery metal board
2	SHA13-072542.012	Grey-silvery metal board

Remarks :

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

RoHS Directive 2011/65/EU

Test Method : (1) IEC 62321:2008 application of modified digestion by surface etching for Cadmium, Lead and Mercury, analysis by ICP-OES
 (2) With reference to IEC 62321:2008 for Hexavalent Chromium by spot test / Colorimetric Method.

Test Item(s)	Limit	Unit	MDL	011
Lead (Pb)	1000	mg/kg	10	ND
Cadmium (Cd)	100	mg/kg	10	ND
Mercury (Hg)	1000	mg/kg	10	ND
Hexavalent Chromium (Cr(VI))	-	-	◇	Negative

Notes :

- (1) The maximum permissible limit is quoted from directive 2011/65/EU, Annex II
- (2) ◇Spot-test:
 Negative = Absence of Cr(VI) coating, Positive = Presence of Cr(VI) coating;
 (The tested sample should be further verified by boiling-water-extraction method if the spot test result is Negative or cannot be confirmed.)
 ◇Boiling-water-extraction:
 Negative = Absence of Cr(VI) coating
 Positive = Presence of Cr(VI) coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.
 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.

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Perfluorooctane Sulfonates (PFOS) and Perfluorooctanoic Acid (PFOA)

Test Method : With reference to US EPA 3550C: 2007, analysis was performed by HPLC-MS.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>012</u>
Perfluorooctane Sulfonates (PFOS) and related Acid, Metal Salt and Amide	1	µg/m ²	1	ND
Perfluorooctanoic Acid (PFOA)	-	µg/m ²	1	ND

Notes :

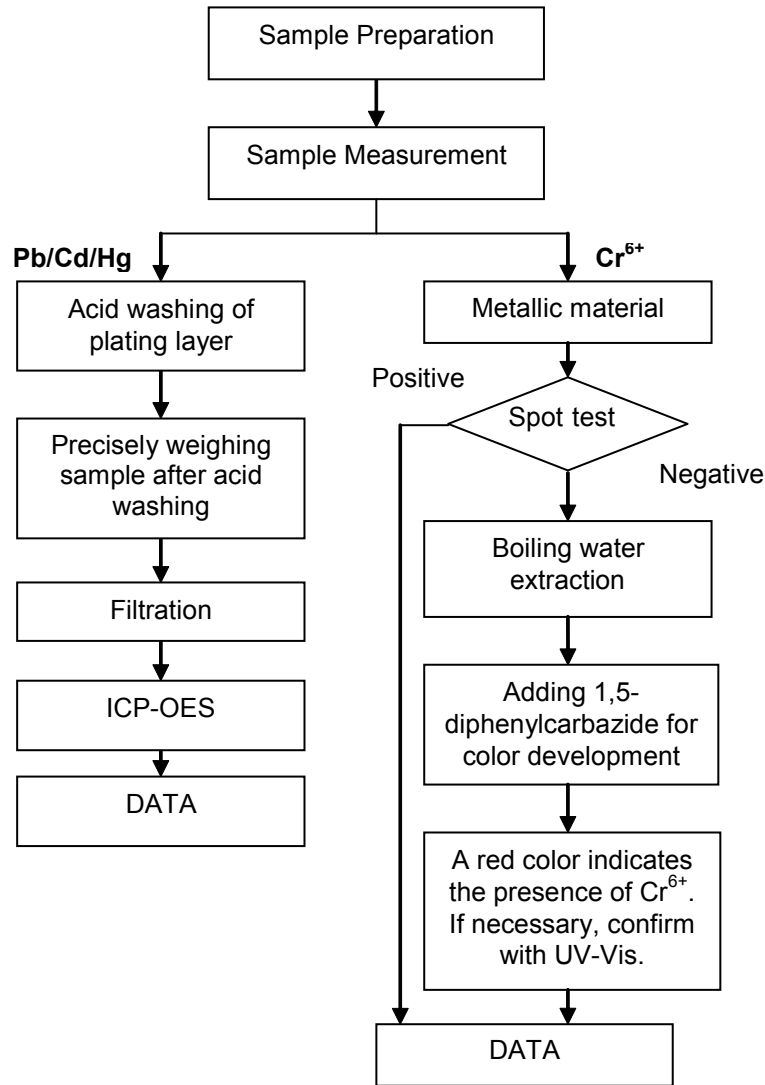
Max. limit specified by commission regulation (EU) No. 757/2010 amending regulation (EC) No 850/2004.

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Plating Pb/Cd/Hg/Cr⁶⁺ Testing Flow Chart

- 1) Name of the person who made testing: Yoyo Wang/Allen Xiao
- 2) Name of the person in charge of testing: Jeff Zhang/George Xu
- 3) Acid washing testing of Pb, Cd and Hg reach total dissolution

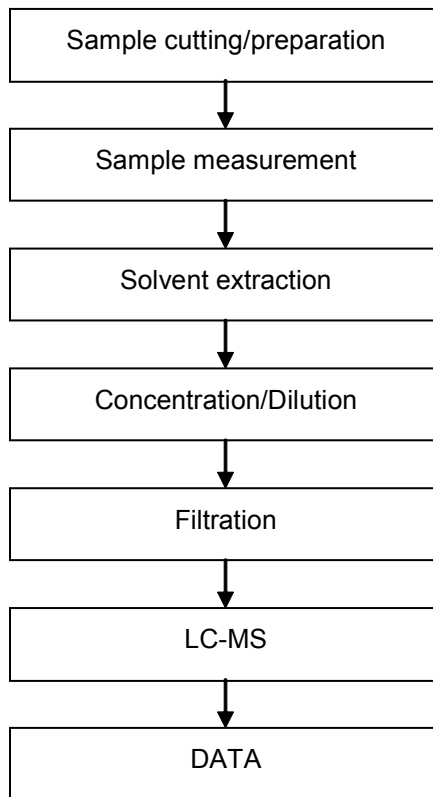


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PFOS/PFOA Testing Flow Chart

- 1) Name of the person who made testing: Judy Li
- 2) Name of the person in charge of testing: Myra Ma



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Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***

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