

## Test Report

No. SH8022468/ CHEM

Date: Mar. 20, 2008

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公司名称: 上海宝山钢铁股份有限公司

Company Name: SHANGHAI BAOSHAN IRON & STEEL CO., LTD

地址: 上海同济路 1800 号

Address: 6/F, 1800 TONGJI RD, BAOSHAN, SHANGHAI, CHINA

样品名称: 电镀锌磷化不封闭涂油

TYPE OF PRODUCT: CONTINUOUSLY ELECTROLYTIC ZINC COATED STEEL SHEET & STRIP,  
PHOSPHATED WITHOUT SEALED, OILING

SGS 相关号: 10869348-23

SGS Ref No.: 10869348-23

收件日期(SAMPLE RECEIVED). Feb.27, 2008

测试日期(TESTING DATE). Feb.27 to Mar.05, 2008, Mar.17 to 20, 2008

Test Requested/测试要求 : (1) To determine the Cadmium, Lead and Mercury content of the electroplating for submitted sample.  
测定委托样品电镀层中镉, 铅, 汞的含量  
(2) To determine the Hexavalent Chromium content of the electroplating for submitted sample.  
测定委托样品电镀层中六价铬的含量  
(3) To determine the PFOS (Perfluorooctane Sulfonates) and PFOA (Perfluorooctanoic Acid) content of the electroplating for submitted sample.  
测定委托样品电镀层中全氟辛烷磺酰基化合物(PFOS) 和全氟辛酸(PFOA)的含量

试验方法/测试结果 : 见后续页

Test method/Test Results: Please refer to next page

Signed for and on behalf of  
SGS-CSTC Chemical Laboratory



Ella Zhang  
Section Manager

Signed for and on behalf of  
SGS-CSTC Chemical Laboratory



Sandy Hao  
Lab Manager

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Test method/测试方法

- : (1) Acid washing method for Cadmium, Lead and Mercury content in electroplating.  
 Analysis was performed by Inductively Coupled Argon Plasma-Atomic Emission Spectrometer (ICP-AES) and Atomic Absorption Spectrometer (AAS).  
 酸洗脱方法测定电镀层中的镉,铅和汞含量.  
 采用ICP和AAS进行分析
- (2) With reference to IEC 62321/2<sup>nd</sup> CDV (111/95/CDV) for Hexavalent Chromium by spot test / Colorimetric Method.  
 参照 IEC 62321/2<sup>nd</sup> CDV (111/95/CDV), 采用点测试法/比色法测定六价铬的含量
- (3) With reference to EPA 3550C: 2000.  
 Analysis was performed by High Performance Liquid Chromatograph-Mass Spectrometer (HPLC-MS).  
 参照 EPA 3550C: 2000 方法. 采用 HPLC-MS 测试.

Test results by chemical method

(1)-(2) Cadmium, Lead, Mercury and Hexavalent Chromium content of the electroplating for submitted sample.

(Unit: mg/kg)

样品电镀层中镉, 铅, 汞和六价铬的含量(单位: mg/kg)

<u>Test Item(s)/</u> <u>测试项目</u>	<u>Method(refer to)/</u> <u>方法(参见)</u>	<u>1</u>	<u>MDL</u>
Cadmium (Cd) in electroplating/ 电镀层中镉(Cd)	(1)	ND	10
Lead (Pb) in electroplating/ 电镀层中铅(Pb)		ND	10
Mercury (Hg) in electroplating/ 电镀层中汞(Hg)		ND	10
Hexavalent Chromium (Cr VI)/ 六价铬(Cr VI)	(2)	Negative	See Note (4)/ 参见备注 (4)

(3) PFOS (Perfluorooctane Sulfonates) and PFOA (Perfluorooctanoic Acid) content of the electroplating for submitted sample (Unit: ug/m<sup>2</sup>)

样品电镀层中全氟辛烷磺酰基化合物(PFOS) 和全氟辛酸(PFOA)的含量(单位: ug/m<sup>2</sup>)

Test Item(s)/ 测试项目	Method(refer to)/ 方法(参见)	1	MDL
<b>PFOS (Perfluorooctane Sulfonates)</b> $\Sigma \left\{ \begin{array}{l} \text{PFOS-acid} \\ \text{PFOS-salt} \end{array} \right\}$ 全氟辛烷磺酰基化合物(PFOS) $\Sigma \left\{ \begin{array}{l} \text{PFOS-酸} \\ \text{PFOS-盐} \end{array} \right\}$	(3)	ND	1
<b>PFOA(Perfluorooctanoic Acid)</b> $\Sigma \left\{ \begin{array}{l} \text{PFOA-acid} \\ \text{PFOA-salt} \end{array} \right\}$ 全氟辛酸(PFOA) $\Sigma \left\{ \begin{array}{l} \text{PFOA-酸} \\ \text{PFOA-盐} \end{array} \right\}$		ND	1

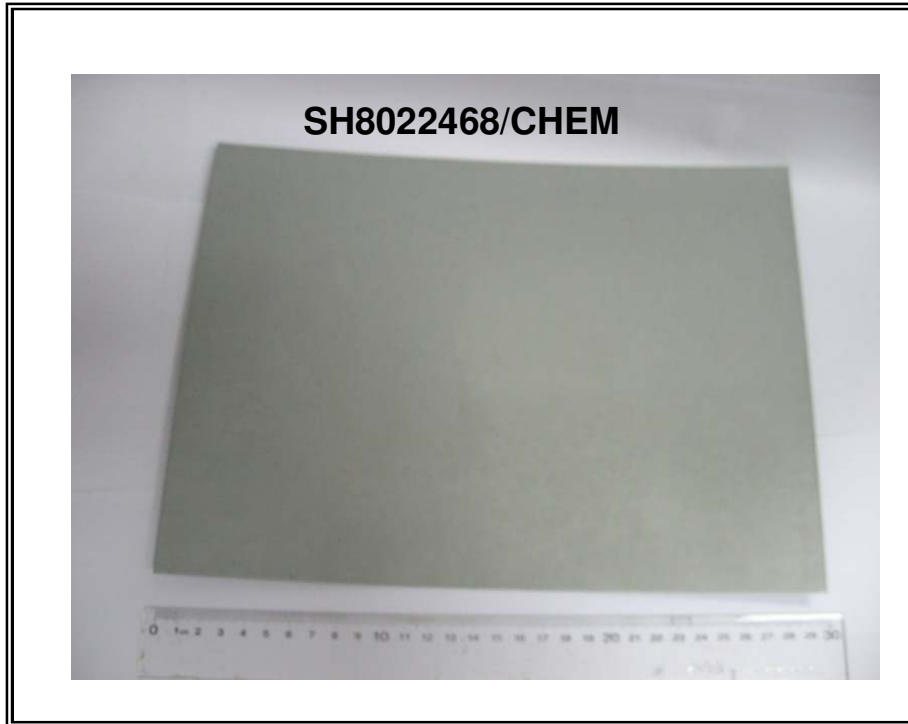
**Test Part Description:**

1. Silvery-grey metal board

Note :

- (1) mg/kg=ppm  
毫克每千克=百万分之一(mg/kg=ppm)
- (2) ND = Not detected  
ND=未检出
- (3) MDL = Method Detection Limit  
MDL =检测极限值
- (4) Spot-test:  
Negative = Absence of CrVI coating, Positive = Presence of CrVI 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 CrVI coating  
Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm<sup>2</sup> sample surface area.  
点测试法:  
Negative= 镀层中未检测到六价铬, Positive = 镀层中检测到六价铬;  
(当点测试结果为 Negative 或无法确定时,将采用沸水萃取法作进一步的结果验证。)  
沸水萃取法:  
Negative = 镀层中未检测到六价铬  
Positive = 镀层中检测到六价铬; 表明 50 cm<sup>2</sup> 表面积的被测试样品的沸水萃取液中六价铬的浓度等于或大于 0.02 mg/kg

Sample photo:



SGS authenticate the photo on original report only

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

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