

测试报告

No. TSNEC1700934518

日期: 2017年06月06日 第1页,共5页

本钢浦项冷轧薄板有限责任公司 中国辽宁省本溪市平山区轧钢路

以下测试之样品是由申请者所提供及确认:电镀锌板(磷化+涂油)

SGS工作编号: TP17-004017 - TJ

样品接收日期: 2017年05月24日

测试周期: 2017年05月24日 - 2017年06月06日

测试要求: 根据客户要求测试

测试方法: 请参见下一页

测试结果: 请参见下一页

基于所送样品进行的测试,镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯 结论:

> 醚(PBDEs)、邻苯二甲酸酯(如邻苯二甲酸二丁酯 (DBP)、邻苯二甲酸丁苄 酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP))的 测试结果符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值

要求。

通标标准技术服务 (天津) 有限公司 授权签名

Reabeca Zhou周艳

批准签署人

备注: 根据客户申请, SGS出具了此中文报告, 英文版本可根据客户要求提供. (The Chinese test report is issued according to the applicant's request. The English version is available from SGS if further needed)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing (inspection report & certificate, please contact us at telephone: (86-755) 83071443.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

SGS Mansion, No.41, The 5th Avenue TEDA, Tianjin, China 300457 t (86-22) 65288000 f (86-22) 25295252 中国·天津市经济技术开发区第五大街41号SGS大厦

邮编: 300457 t (86-22) 65288000 f (86-22) 25295252

www.sgsgroup.com.cn e sgs.china@sgs.com



测试报告 No. TSNEC1700934518 日期: 2017年06月06日 第2页,共5页

测试结果:

测试样品描述:

样品编号 SGS样品ID 描述

TSN17-009345.009 银灰色金属板 SN1

备注:

(1) 1 mg/kg = 0.0001%

(2) MDL = 方法检测限

(3) ND = 未检出 (< MDL)

(4) "-" = 未规定

RoHS 指令2011/65/EU附录II的修正指令(EU) 2015/863

测试方法: (1) 参考IEC 62321-5:2013,用ICP-OES测定镉的含量

(2) 参考IEC 62321-5:2013,用ICP-OES测定铅的含量

(3) 参考IEC 62321-4:2013,用ICP-OES测定汞的含量

(4) 参考IEC 62321-7-1:2015, 用紫外-可见分光光度计比色法测定六价铬的含量

(5) 参考IEC 62321-6:2015, 用GC-MS测定PBBs(多溴联苯)和PBDEs(多溴二苯醚) 的含量

(6) 参考IEC 62321-8:2017,用GC-MS测定邻苯二甲酸酯的含量

测试项目	<u>限值</u>	<u>单位</u>	<u>MDL</u>	<u>009</u>
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	ND
汞(Hg)	1000	mg/kg	2	ND
六价铬(Cr(VI))▼	-	µg/cm²	0.10	ND
多溴联苯之和(PBBs)	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing (inspection report & certificate, please contact us at telephone: (86-755) 8307 1443.

To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443.

SGS Mansion, No.41, The 5th Avenue TEDA, Tianjin, China 300457 t (86-22) 65288000 f (86-22) 25295252 中国·天津市经济技术开发区第五大街41号SGS大厦

邮编: 300457 t (86-22) 65288000 f (86-22) 25295252

www.sgsgroup.com.cn e sgs.china@sgs.com



测试报告	No. TSNEC1700934518	日期: 2017年06月06日	第3页,共5页

测试项目	限值	<u>单位</u>	<u>MDL</u>	<u>009</u>
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯(DBP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	50	ND

备注:

(1) 最大允许极限值引用自RoHS指令(EU) 2015/863.

IEC 62321系列等同于 EN 62321系列

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

- (2) ▼=a. 当六价铬的浓度高于0.13 µg/cm²时, 样品为阳性, 即含有六价铬;
 - b. 当六价铬的浓度为ND(低于0.10 µg/cm²)时, 样品为阴性, 即未检测到六价铬;
 - c. 当六价铬的浓度介于0.10 µg/cm²与0.13 µg/cm²之间时, 无法直接判定是否检测到六价铬, 因不同个体的样品表面差异可能会影响测定结果:

由于未获知样品的存储条件和生产日期,样品的六价铬测试结果仅能代表测试时样品含六价铬的状态.

- (3) 2015年6月4号发表在欧盟官方杂志(官方公报)上的RoHS指令(EU) 2015/863附录II限值中还包括邻苯 二甲酸酯BBP,DBP,DEHP和DIBP。新的指令限制了电子电器产品的每一个均一材质中邻苯二甲酸酯含 量不得超过0.1%。
- (4) 2021年7月22号开始, DEHP, BBP, DBP 和 DIBP的限制适用于医疗器械,包括体外医疗器械,监控仪 表,包括工业监测和控制仪器。
- (5) DEHP, BBP, DBP 和 DIBP的限制不适用于2019年7月22日前投放市场的电缆及电子电气产品中用于维 修、重复利用、功能更新及容量提升的备用配件以及2021年7月22日前投放市场的医疗器械,包括体外医 疗器械, 监控仪表, 包括工业监测和控制仪器。
- (6) DEHP、BBP 和 DBP的限制不适用于玩具产品,因为No.1907/2006附录XVII第51条已对玩具产品中 的DEHP、BBP 和 DBP含量进行了限制。



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing (inspection report & certificate, please contact us at telephone: (86-755) 8307 1443.

To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443.

SGS Mansion, No.41, The 5th Avenue TEDA, Tianjin, China 300457 t (86-22) 65288000 f (86-22) 25295252 中国·天津市经济技术开发区第五大街41号SGS大厦

邮编: 300457 t (86-22) 65288000 f (86-22) 25295252



测试报告

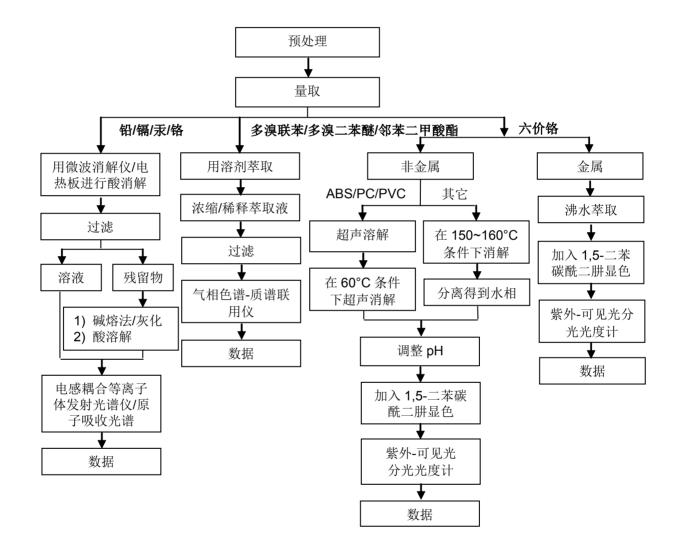
No. TSNEC1700934518

日期: 2017年06月06日 第4页,共5页

附件

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs/Phthalates 测试流程图

- 1) 分析人员: 张盼/刘占文/王海颖/陈希涵
- 2) 项目负责人: 王富强/朱敏
- 3) 样品按照下述流程被完全消解(六价铬和多溴联苯/多溴二苯醚/邻苯二甲酸酯测试除外)。





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing (inspection report & certificate, please contact us at telephone: (86-755) 8307 1443.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone; (86-755) 8307 1443,

SGS Mansion, No.41, The 5th Avenue TEDA, Tianjin, China 300457 t (86-22) 65288000 f (86-22) 25295252 中国·天津市经济技术开发区第五大街41号SGS大厦

邮编: 300457 t (86-22) 65288000 f (86-22) 25295252

www.sgsgroup.com.cn e sgs.china@sgs.com

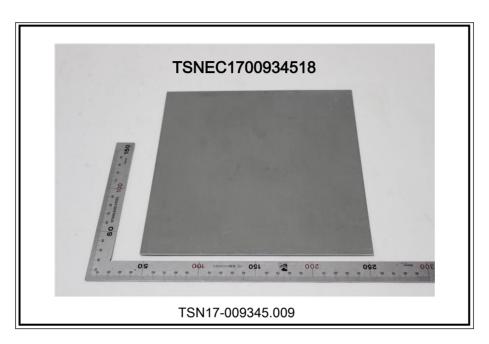


测试报告

No. TSNEC1700934518

日期: 2017年06月06日 第5页,共5页

样品照片:



此照片仅限于随SGS正本报告使用

*** 报告完 ***



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing (inspection report & certificate, please contact us at telephone: (86-755) 8307 1443. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone; (86-755) 8307 1443,