

检测报告 编号: CANEC2209914124 日期: 2022年06月02日 第1页,共10页

客户名称: 优耐铜材 (苏州) 有限公司

客户地址: 江苏省苏州市高新区金枫路567号

样品名称: 氯化镍溶液

以上样品及信息由客户提供。

SGS工作编号: CP22-026415 - GZ

内部编号: 22655395

样品接收日期: 2022年05月17日

检测周期: 2022年05月17日 - 2022年05月30日

检测要求: 根据客户要求检测 检测方法: 请参见下一页

检测结果: 请参见下一页

基于所送样品进行的检测,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 检测结果符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值

要求。

通标标准技术服务有限公司广州分公司 授权签名

陈江梨

Allie Chen 陈江梨 批准签署人





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, or email: CN.Doccheck@gss.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663

t (86-20) 82155555 t (86-20) 82155555



检测报告 编号: CANEC2209914124 日期: 2022年06月02日 第2页,共10页

检测结果:

检测样品描述:

样品编号 SGS样品ID 描述 SN1 绿色液体 CAN22-099141.012

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

检测方法: 参考IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 和 IEC 62321-8:2017, 采用 ICP-OES, UV-Vis 和 GC-MS 进行分析.

<u>检测项目</u>	<u>限值</u>	<u>单位</u>	<u>MDL</u>	<u>012</u>
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1,000	mg/kg	2	ND
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(Cr(VI))	1,000	mg/kg	8	ND
多溴联苯之和(PBBs)	1,000	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)	1,000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
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



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.ospx 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, or email: CN.Doccheck@gss.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 t (86-20) 82155555



检测报告 编号: CANEC2209914124 日期: 2022年06月02日 第3页,共10页

<u>检测项目</u>	<u>限值</u>	<u>单位</u>	<u>MDL</u>	<u>012</u>
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)	1,000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1,000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1,000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1,000	mg/kg	50	ND

备注:

- (1)最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) IEC 62321系列等同于 EN 62321系列

https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP_ORG_ID,FSP_LANG_ID:12586

(3) 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。

卤素

检测方法: 参考EN 14582:2016,用 IC分析。

检测项目	<u>单位</u>	<u>MDL</u>	<u>012</u>
氟 (F)	mg/kg	50	ND
氯 (CI)	mg/kg	50	168432
溴 (Br)	mg/kg	50	ND
碘 (I)	mg/kg	50	ND

备注:

氯的检测结果仅供参考。

元素分析

检测方法: SGS内部方法(GZTC CHEM-TOP-009-01,参考EPA 3050B:1996),采用ICP-OES进行分析。

检测项目	<u>单位</u>	<u>MDL</u>	<u>012</u>
铍 (Be)	mg/kg	5	ND
锑 (Sb)	mg/kg	10	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.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, or email: CN.Doccheck@sgs.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 t (86-20) 82155555



检测报告 编号: CANEC2209914124 日期: 2022年06月02日 第4页,共10页

邻苯二甲酸酯

检测方法: 参考 IEC 62321-8:2017, 采用 GC-MS 进行分析。

检测项目	CAS NO.	<u>单位</u>	MDL	012
邻苯二甲酸二异壬酯 (DINP)	28553-12-0 /	%(w/w)	0.005	ND
	68515-48-0			
邻苯二甲酸二异癸酯 (DIDP)	26761-40-0 /	%(w/w)	0.005	ND
	68515-49-1			
邻苯二甲酸二正辛酯 (DNOP)	117-84-0	%(w/w)	0.005	ND

全氟辛酸(PFOA)及其盐 & 全氟辛烷磺酸 (PFOS)及其衍生物

检测方法: 参考CEN/TS 15968:2010, 采用LC-MS或LC-MS/MS进行分析。

检测项目	CAS NO.	单位	MDL	012
全氟辛酸 (PFOA)及其盐+	335-67-1	mg/kg	10.000	ND
全氟辛烷磺酸 (PFOS) [^]	1763-23-1	mg/kg	10.000	ND
全氟辛基磺酰胺(PFOSA)	754-91-6	mg/kg	10.000	ND
N-甲基全氟辛烷磺酰胺(MeFOSA)	31506-32-8	mg/kg	10.000	ND
N-乙基全氟辛烷磺酰胺(EtFOSA)	4151-50-2	mg/kg	10.000	ND
2-(N-甲基全氟辛基磺酰胺)乙醇(MeFOSE)	24448-09-7	mg/kg	10.000	ND
2-(N-乙基全氟辛基磺酰胺)乙醇(EtFOSE)	1691-99-2	mg/kg	10.000	ND
全氟辛烷磺酸 (PFOS)及其衍生物	-	mg/kg	-	ND

备注:

(1) + PFOA 及其盐包含PFOA-Na (CAS No.: 335-95-5), PFOA-K (CAS No.: 2395-00-8), PFOA-Ag (CAS No.: 335-93-3), PFOA-F (CAS No.: 335-66-0) 和 APFO (CAS No.: 3825-26-1);

(2) ^ 全氟辛烷磺酸 (PFOS)包含 PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-NH4 (CAS No.: 29081-56-9), PFOS-NH(OH)2 (CAS No.: 70225-14-8), PFOS-N(C2H5)4 (CAS No.: 56773-42-3), PFOS-DDA (CAS No.:251099-16-8) 和POSF (CAS No.: 307-35-7)

除非另有说明,参照ILAC-G8:09/2019,使用简单接受(w=0)的二元判定规则进行符合性判定。 除非另有说明,此报告结果仅对检测的样品负责。本报告未经本公司书面许可,不可部分复制。 检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的,仅供内部参考。



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, or email: CN.Doccheck@sgs.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn t (86-20) 82155555 sgs.china@sgs.com



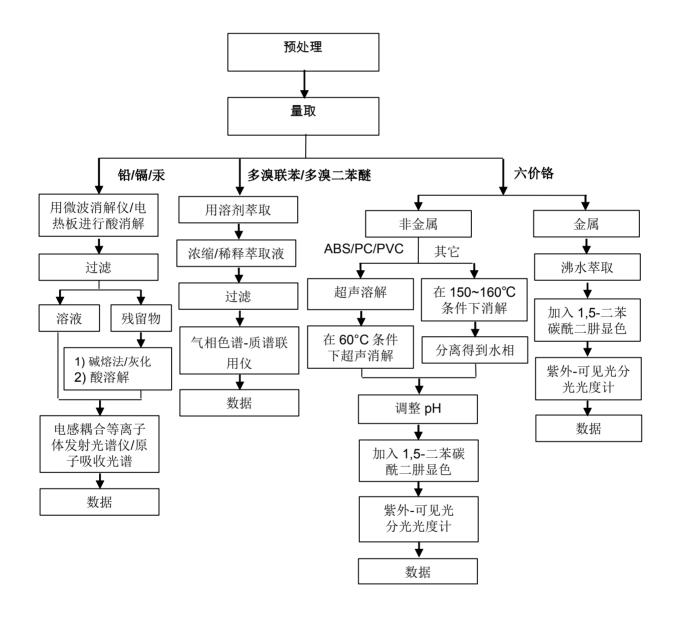
编号: CANEC2209914124

日期: 2022年06月02日 第5页,共10页

附件

Pb/Cd/Hg/Cr6+/PBBs/PBDEs 检测流程图

1) 样品按照下述流程被完全消解(六价铬和多溴联苯/多溴二苯醚检测除外)。





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.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, or email: CN.Doccheck@sgs.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn t (86-20) 82155555 sgs.china@sgs.com

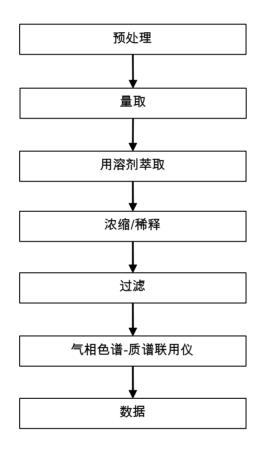


编号: CANEC2209914124

日期: 2022年06月02日 第6页,共10页

附件

Phthalates 检测流程图





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, or email: CN.Doccheck@sgs.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号

t (86-20) 82155555 邮编: 510663 t (86-20) 82155555

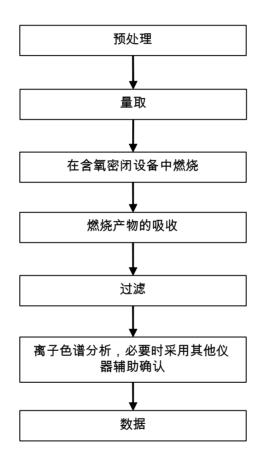


编号: CANEC2209914124

日期: 2022年06月02日 第7页,共10页

附件

Halogen 检测流程图





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, or email: CN.Doccheck@sgs.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号

t (86-20) 82155555 邮编: 510663 t (86-20) 82155555

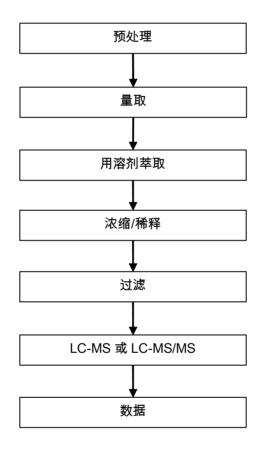


编号: CANEC2209914124

日期: 2022年06月02日 第8页,共10页

附件

PFOA / PFOS 检测流程图





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, or email: CN.Doccheck@sgs.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663 t (86-20) 82155555

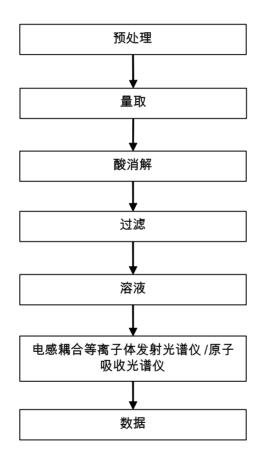


编号: CANEC2209914124

日期: 2022年06月02日 第9页,共10页

附件

元素检测流程图





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, or email: CN.Doccheck@sgs.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

邮编: 510663

中国·广州·经济技术开发区科学城科珠路198号

t (86-20) 82155555 t (86-20) 82155555



编号: CANEC2209914124

日期: 2022年06月02日 第10页,共10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 jurisdition 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, or email: CN.Doccheck@sgs.com"

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663

t (86–20) 82155555 t (86–20) 82155555