

No. TSNEC1801786702

日期: 2018年09月21日 第1页,共7页

唐山恭成科技有限公司 河北省唐山市曹妃甸工业区中日产业园区南区11号

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SGS工作编号: TP18-007803 - TJ

样品接收日期: 2018年09月17日

测试周期: 2018年09月17日 - 2018年09月21日

测试要求: 根据客户要求测试

请参见下一页 测试方法:

测试结果: 请参见下一页

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Reabeca Zhou周艳

批准签署人





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测试报告 No. TSNEC1801786702 日期: 2018年09月21日 第2页,共7页

测试结果:

### 测试样品描述:

样品编号 描述 SGS样品ID

TSN18-017867.001 带银色金属的黑色固体(混测) SN<sub>1</sub>

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

## <u>镉, 铅, 汞, 六价铬, PBBs(多溴联苯),PBDEs(多溴二苯醚), 邻苯二甲酸二丁酯 (DBP),邻苯二甲酸丁苄酯(BBP),邻</u> <u>苯二甲酸二(2-乙基已基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP)</u>

测试方法: 参考IEC 62321-5:2013, IEC 62321-4:2013+AMD1:2017, 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.

测试项目	<u>限值</u>	<u>单位</u>	<u>MDL</u>	<u>001</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))	1000	mg/kg	8	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
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



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<u>测试项目</u>	<u>限值</u>	<u>单位</u>	<u>MDL</u>	<u>001</u>
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:

- (2) 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%。
- (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。
- (4) 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。
- (5) 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。

#### 卤素

测试方法: 参照EN 14582:2016方法测定, 采用IC进行分析,

测试项目	<u>单位</u>	<u>MDL</u>	<u>001</u>
氟(F)	mg/kg	50	ND
氯(CI)	mg/kg	50	ND
溴(Br)	mg/kg	50	ND
碘(l)	mg/kg	50	ND



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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。



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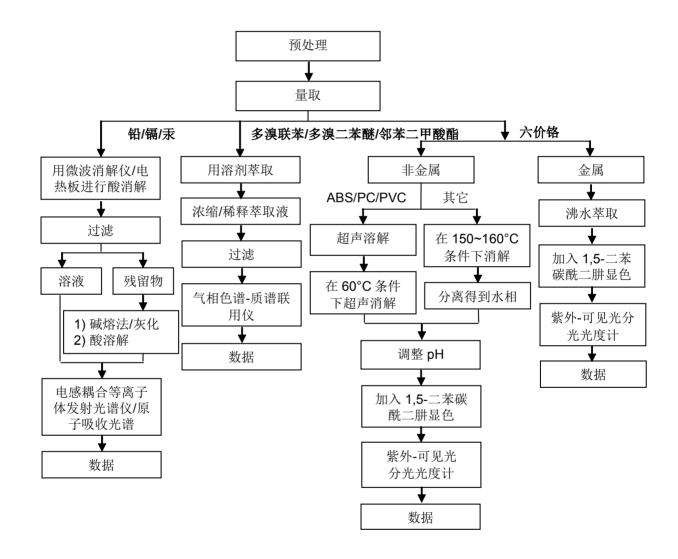
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附件

# Pb/Cd/Hg/Cr<sup>6+</sup>/PBBs/PBDEs/Phthalates 测试流程图

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/邻苯二甲酸酯测试除外)。





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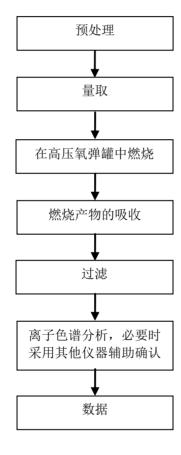


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附件

## 卤素测试流程图





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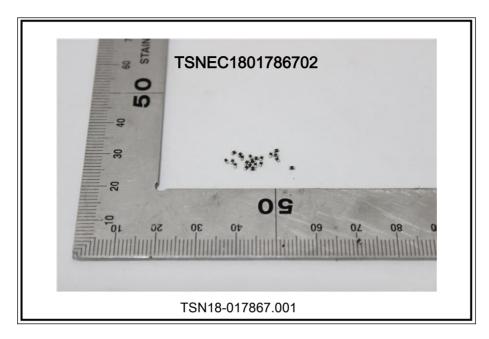
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