

## 检测报告

编号: TSNEC2301920503

日期: 2023年07月21日 第1页,共10页

客户名称: 江苏洪硕科技有限公司  
客户地址: 江苏省宿迁市高新区华山路106号

样品名称: 热塑性弹性体  
以上样品及信息由客户提供。

SGS工作编号: TP23-005766 - TJ  
样品接收日期: 2023年07月17日  
检测周期: 2023年07月17日 - 2023年07月21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  
检测结果概要:

| 检测要求  | 结论    |
|---|-------|
| 欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863- 铅,汞,镉,六价铬,多溴联苯(PBBs),多溴二苯醚(PBDEs),邻苯二甲酸二丁酯(DBP),邻苯二甲酸丁苯酯(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) | 符合    |
| AfPS GS 2019:01 PAK- 多环芳香烃(PAHs)  | 见检测结果 |

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寇怀江

Patrick Kou 寇怀江  
批准签署人

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编号: TSNEC2301920503

日期: 2023年07月21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  | TSN23-019205.001 | 白色片 |

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

### 欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863- 铅,汞,镉,六价铬,多溴联苯(PBBs),多溴二苯醚(PBDEs),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)

检测方法: 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.

| 检测项目           | 限值   | 单位    | MDL | 001 |
|----------------|------|-------|-----|-----|
| 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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日期: 2023年07月21日 第3页,共10页

| 检测项目                  | 限值   | 单位    | MDL | 001 |
|-----------------------|------|-------|-----|-----|
| 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。
- (2) IEC 62321 系列等同于 EN 62321 系列。
- (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。

### AfPS GS 2019:01 PAK-多环芳香烃(PAHs)

检测方法: 参考AfPS GS 2019:01 PAK 方法检测, 采用 GC-MS 进行分析。

| 检测项目   | CAS NO.  | 单位    | MDL | 001 |
|--|----------|-------|-----|-----|
| 苯并(a)芘 (BaP)                                 | 50-32-8  | mg/kg | 0.1 | ND  |
| 苯并(e)芘 (BeP)                                 | 192-97-2 | mg/kg | 0.1 | ND  |
| 苯并(a)蒽 (BaA)                                 | 56-55-3  | mg/kg | 0.1 | ND  |
| 苯并(b)荧蒽 (BbF)                                | 205-99-2 | mg/kg | 0.1 | ND  |
| 苯并(j)荧蒽 (BjF)                                | 205-82-3 | mg/kg | 0.1 | ND  |
| 苯并(k)荧蒽 (BkF)                                | 207-08-9 | mg/kg | 0.1 | ND  |
| 蒽 (CHR)                                      | 218-01-9 | mg/kg | 0.1 | ND  |
| 二苯并(a,h)蒽(DBA)                               | 53-70-3  | mg/kg | 0.1 | ND  |
| 苯并(g,h,i)芘(二蔡嵌苯) (BPE)                       | 191-24-2 | mg/kg | 0.1 | ND  |
| 茚并(1,2,3-c,d)芘 (IPY)                         | 193-39-5 | mg/kg | 0.1 | ND  |
| 菲 (PHE)                                      | 85-01-8  | mg/kg | 0.1 | ND  |
| 芘 (PYR)                                      | 129-00-0 | mg/kg | 0.1 | ND  |
| 蒽 (ANT)                                      | 120-12-7 | mg/kg | 0.1 | ND  |
| 荧蒽 (FLT)                                     | 206-44-0 | mg/kg | 0.1 | ND  |
| 4项多环芳香烃总和菲 (PHE), 芘 (PYR), 蒽 (ANT), 荧蒽 (FLT) |          | mg/kg | -   | ND  |



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## 检测报告

编号: TSNEC2301920503

日期: 2023年07月21日 第4页,共10页

检测项目

萘 (NAP)

15项多环芳香烃总和

CAS NO.

91-20-3

单位

mg/kg

mg/kg

MDL

0.1

-

001

ND

ND

### AfPS(德国产品安全委员会):多环芳香烃的要求

| 参数<br>单位: mg/kg                        | 1 类   | 2 类   |              | 3 类   |              |
|--|---|---|--------------|---|--------------|
|  | 设计意图为放入口<br>中的材料, 或与皮<br>肤长期接触 (超过<br>30 秒) 的材料用<br>于<br>-2009/48/EC 定<br>义的玩具, 或<br>-供3岁以下儿童 <sup>a,b</sup><br>使用。 | 不属于第 1 类, 设计意图或可预见<br><sup>d</sup> 与皮肤长期接触 (超过 30 秒) 或<br>短期重复接触 <sup>c</sup> 的材料 |              | 不属于第 1 和 2 类, 设计意图<br>或可预见与皮肤短期接触(不超<br>过 30 秒)材料 |              |
|  |   | a.供儿童<br>使用的产品  | b.其他产品       | a.供儿童<br>使用的产品                                    | b.其他产品       |
| 苯并(a)芘 (BaP)                           | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 苯并(e)芘 (BeP)                           | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 苯并(a)蒽 (BaA)                           | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 苯并(b)荧蒽 (BbF)                          | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 苯并(j)荧蒽 (BjF)                          | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 苯并(k)荧蒽(BkF)                           | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 蒽 (CHR)                                | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 二苯并(a,h)蒽(DBA)                         | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 苯并(g,h,i)花(二苯嵌苯)<br>(BPE)              | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 茚并(1,2,3-c,d)芘 (IPY)                   | < 0.2   | < 0.2   | < 0.5        | < 0.5   | < 1          |
| 菲 (PHE), 芘 (PYR), 蒽<br>(ANT), 荧蒽 (FLT) | < 1<br>(总和)   | < 5<br>(总和)   | < 10<br>(总和) | < 20<br>(总和)                                      | < 50<br>(总和) |
| 萘 (NAP)                                | < 1   | < 2   |              | < 10  |              |
| 15 PAH之和                               | <1  | < 5   | < 10         | < 20  | < 50         |

注释:

<sup>a</sup> 儿童是指法定年龄未满 14 周岁的人。

<sup>b</sup> 供儿童使用包括儿童的主动接触或被动接触。

<sup>c</sup> “短期重复接触”的定义摘自 REACH 附录 XVII 第 50 条修正案 ((EC) No. 1272/2013)。

<sup>d</sup> 根据德国产品安全法 (ProdSG) (第一章第 2 条第 28 款) 的定义, “可预见的使用”是指将产品投放市场的人无意但可以合理预见的方式使用产品。

备注:

德国产品安全委员会 (AfPS) 于 2020 年 4 月 10 日发布了关于多环芳香烃 (PAHs) 的新文件 (AfPS GS 2019:01 PAK), 该文件将于 2020 年 7 月 1 日起用于 GS-MARK 认证。

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。



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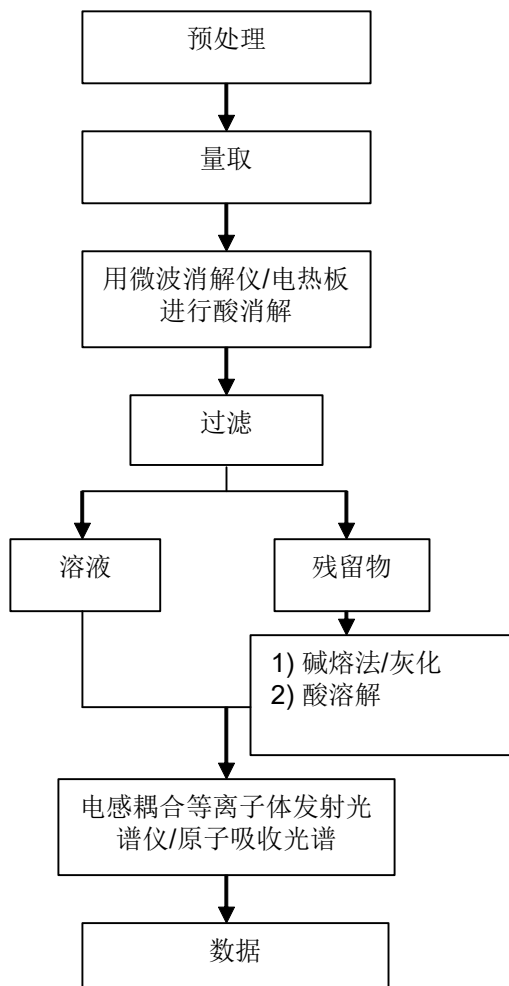
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## 元素(IEC62321) 检测流程图

1)样品按照下述流程被完全消解



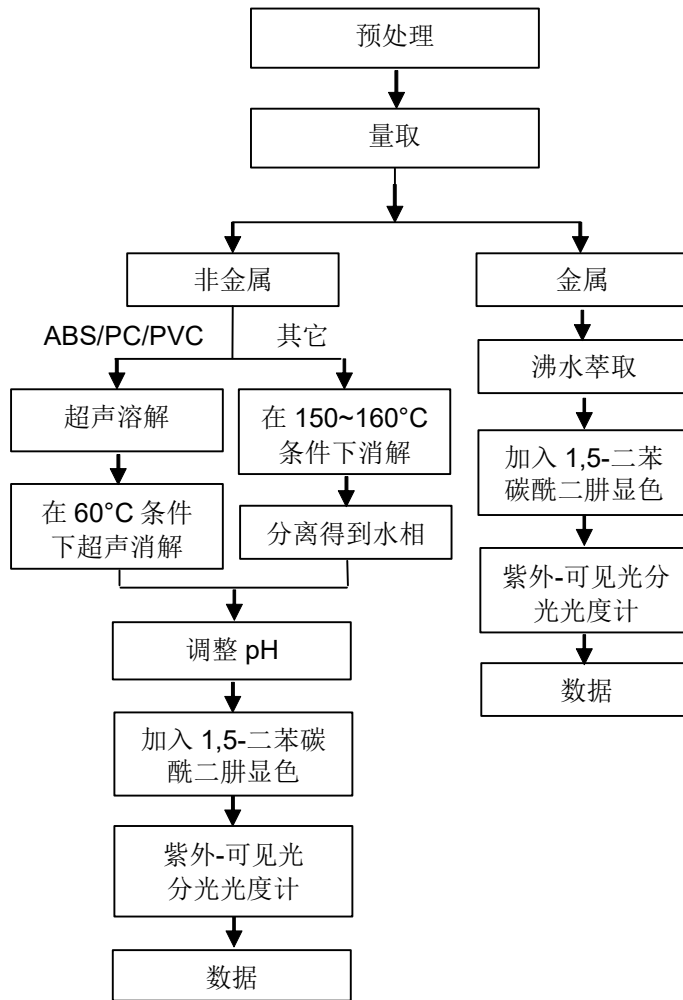
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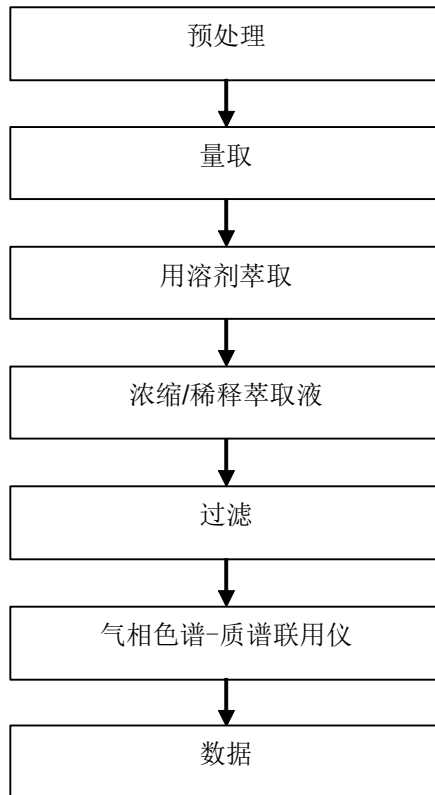
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## 六价铬检测流程图



## PBBs/PBDEs 检测流程图



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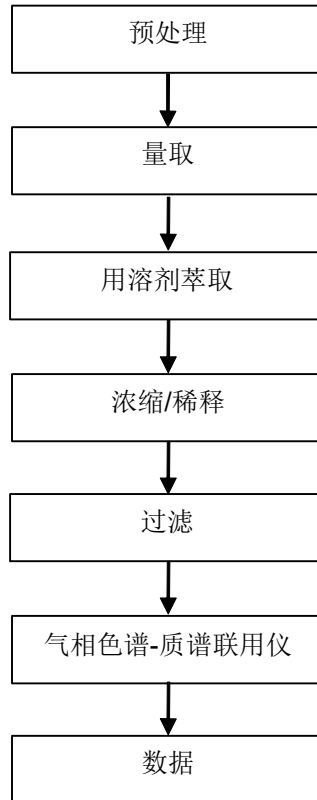
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附件

### 邻苯二甲酸酯检测流程图



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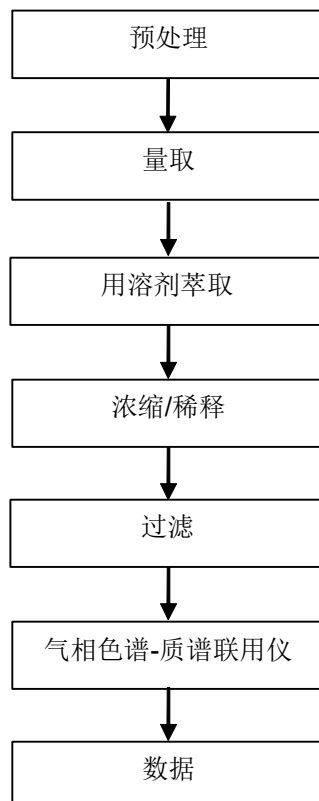
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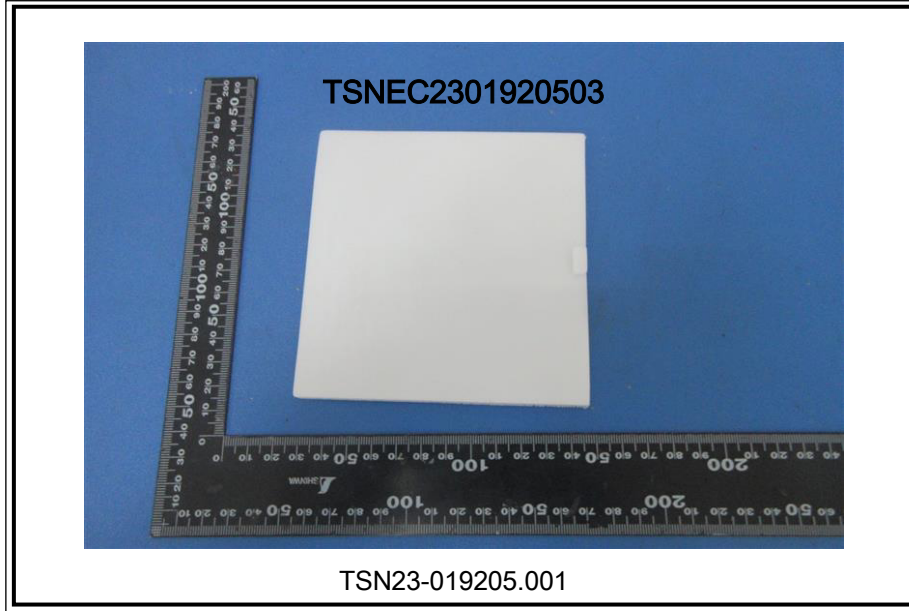
## PAHs 检测流程图



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