



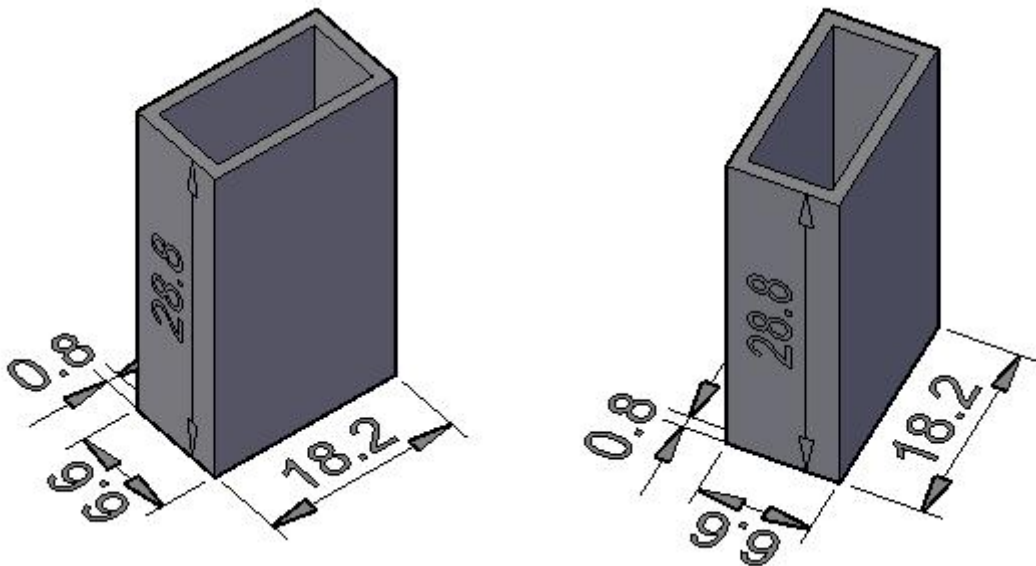
# 结构平面辅料承认书

文件编号: F-ACK-9703

页次: 2/5 页

物料编码: NDST-SP001-MT005	承认日期: 2021-04-15	版本	修改内容
物料名称: 硅胶帽套	产品型号: T0-3PB	001	首次发行
尺寸: 28.8*18.2*6.6*0.8MM			
公差范围: +/-0.2			
材质: 硅胶			
颜色: 灰色			
印刷颜色: 无			
符合 ROHS 要求: <input checked="" type="checkbox"/> 是 <input type="checkbox"/> 否			
储存环境: 常温		使用有效期: 五年	

附图: (单位: mm)



尺寸 编号	尺寸 规格	测量 工具	样 品 编 号							判定结果		
			1#	2#	3#	4#	5#	6#	7#	OK	NG	
①	0.8MM	厚度计	0.80	0.80	0.80							
②	6.6MM	游标尺	6.6	6.6	6.6							
③	18.2MM	游标尺	18.2	18.2	18.2							
④	28.8MM	游标尺	28.7	28.8	28.8							

表单编号: F-04-049/003



# 深圳市诺德斯特科技有限公司 材质证明书

产品名称: 灰色帽套 UL 编号 E338508, NDST-SP-001

材质组成: 高纯度的混练硅胶, 相应特制散热、防火等进口材料按一定的比例复合研制而成。

项目	单位	测试方法	测试值
颜色	--	目视	灰色
硬度	Shore C	ASTM D2240	75 度±5
比重	g/cm <sup>3</sup>	ASTM D297	1.9
延伸率	%	ASTM D412	10
耐温范围	℃	EN344	-40℃~+150℃
击穿电压	Kv	ASTM D149	≥5Kv
拉强度	Kgf/cm <sup>2</sup>	ASTM D412	30±3
体积电阻率	Ω-cm	ASTM D257	1.5*10 <sup>13</sup>
防火性能	--	UL-94	V-2
导热系数	W/m.k	ASTM D5470	1.0

核准: 夏艳丽





# 结构平面辅料承认书

文件编号: F-ACK-9703

页次: 4/5 页

## 深圳市诺德斯特科技有限公司

包装说明:

- 1.产品名称: 灰色矽胶帽套.
- 2.产品规格: 28.8\*18.2\*6.6\*0.8MM.
- 3.最小包装数量: 500PCS.
- 4.每箱数量: 500PCS\*10 包=5000PCS

包装示意图片



待包装产品



把产品装入 PE 胶袋, 并贴上内标签



装贴好内标签的产品装入纸箱, 每箱 10 包



装箱, 并贴上外标签及 ROHS 标签后封箱





# 深圳市诺德斯特科技有限公司

## 产品详情

### “专业生产 TO-3PB 硅胶帽套”参数说明

是否有现货：	是	品牌：	深圳市诺德斯特科技有限公司
类型：	电子材料	加工方式：	其它
型号：	TO-3PB	商标：	诺德斯特

矽胶帽套是以硅胶及玻璃纤维为基材经过特殊工艺生产而成的套状制品。

因其优良的的导热、绝缘、防震及装配方便等特性，被广泛应用于发热晶体管、二极管、三极管使用时直接安装在发热管上导热硅胶帽套建议用于低应压力处。

产品说明：具有辅助散热功能，可以替代原有的散热金属

不用固定可直接套于小中功率发热晶体管之上，减轻产品重量。

应用范围：功率器件、晶体功率管（三极管、二极管）。大功率发热管以及需要绝缘散热的地方

典型规格：TO-220A、TO-220B、TO-220C、TO-3PA 等。





# 结构平面辅料承认书

文件编号: F-ACK-9703

页次: 1/5 页

客户名称: (CUSTOMER) A-XX-10-88

<h2 style="margin: 0;">产 品 规 格 书</h2> <h3 style="margin: 0;">PRODUCT SPECIFICATION SHEET</h3>
---

供应商 CUSTOMER	深圳市诺德斯特科技有限公司
品名 DESCRIPTION	灰色硅胶帽套
规格 TYPE/MODEL	28.8*18.2*6.6*0.8MM
客户料号 CLIENT PART NO.	C2826442
公司料号 LTD. NO.	NDST-SP001-MT005
送样日期 DATE NO.	2021-04-15

<b>生 产 方</b>	工艺审核 TECHNICAL	品质审核 QUALITY	项目审核 PROJECT	开发审核 DEVELOPING
	<b>袁素萍</b>	<b>夏艳丽</b>	<b>彭彦华</b>	<b>彭春华</b>

<b>客 户 方</b>	材料工程师 Material Engineer	设计工程师 Engineer	主管审批 Approval	研发体系 R&D System

### 供应商信息

公司名称: 深圳市诺德斯特科技有限公司  
 地址: 深圳观兰君子布君新路法尔达工业区  
 电话: 0755-29527673  
 传真: 0755-29527674  
 邮编: 518000  
 E-mail: ndstpeng7684@163.com





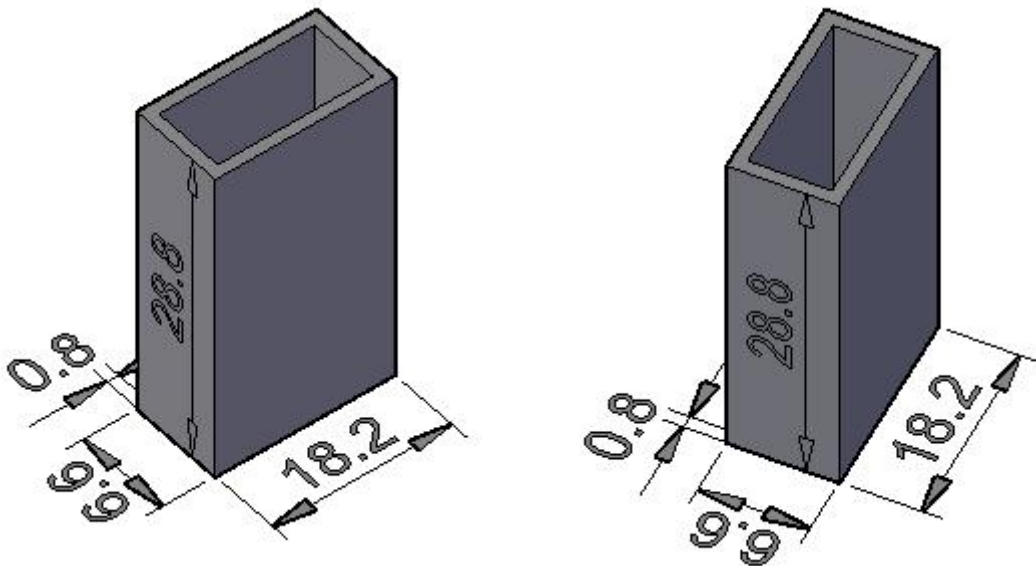
# 结构平面辅料承认书

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物料编码: NDST-SP001-MT005	承认日期: 2021-04-15	版本	修改内容
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公差范围: +/-0.2			
材质: 硅胶			
颜色: 灰色			
印刷颜色: 无			
符合 ROHS 要求: <input checked="" type="checkbox"/> 是 <input type="checkbox"/> 否			
储存环境: 常温 使用有效期: 五年			

附图: (单位: mm)



尺寸 编号	尺寸 规格	测量 工具	样 品 编 号							判定结果		
			1#	2#	3#	4#	5#	6#	7#	OK	NG	
①	0.8MM	厚度计	0.80	0.80	0.80							
②	6.6MM	游标尺	6.6	6.6	6.6							
③	18.2MM	游标尺	18.2	18.2	18.2							
④	28.8MM	游标尺	28.7	28.8	28.8							

表单编号: F-04-049/003



# 深圳市诺德斯特科技有限公司 材质证明书

产品名称: 灰色帽套 UL 编号 E338508, NDST-SP-001

材质组成: 高纯度的混练硅胶, 相应特制散热、防火等进口材料按一定的比例复合研制而成。

项目	单位	测试方法	测试值
颜色	--	目视	灰色
硬度	Shore C	ASTM D2240	75 度±5
比重	g/cm <sup>3</sup>	ASTM D297	1.9
延伸率	%	ASTM D412	10
耐温范围	℃	EN344	-40℃~+150℃
击穿电压	Kv	ASTM D149	≥5Kv
拉强度	Kgf/cm <sup>2</sup>	ASTM D412	30±3
体积电阻率	Ω-cm	ASTM D257	1.5*10 <sup>13</sup>
防火性能	--	UL-94	V-2
导热系数	W/m.k	ASTM D5470	1.0

核准: 夏艳丽





# 结构平面辅料承认书

文件编号: F-ACK-9703

页次: 4/5 页

## 深圳市诺德斯特科技有限公司

包装说明:

- 1.产品名称: 灰色矽胶帽套.
- 2.产品规格: 28.8\*18.2\*6.6\*0.8MM.
- 3.最小包装数量: 500PCS.
- 4.每箱数量: 500PCS\*10 包=5000PCS

包装示意图片



待包装产品



把产品装入 PE 胶袋, 并贴上内标签



装贴好内标签的产品装入纸箱, 每箱 10 包



装箱, 并贴上外标签及 ROHS 标签后封箱







# 深圳市诺德斯特科技有限公司

## 产品详情

### “专业生产 TO-3PB 硅胶帽套”参数说明

是否有现货：	是	品牌：	深圳市诺德斯特科技有限公司
类型：	电子材料	加工方式：	其它
型号：	TO-3PB	商标：	诺德斯特

矽胶帽套是以硅胶及玻璃纤维为基材经过特殊工艺生产而成的套状制品。

因其优良的的导热、绝缘、防震及装配方便等特性，被广泛应用于发热晶体管、二极管、三极管使用时直接安装在发热管上导热硅胶帽套建议用于低应压力处。

产品说明：具有辅助散热功能，可以替代原有的散热金属

不用固定可直接套于小中功率发热晶体管之上，减轻产品重量。

应用范围：功率器件、晶体功率管（三极管、二极管）。大功率发热管以及需要绝缘散热的地方

典型规格：TO-220A、TO-220B、TO-220C、TO-3PA 等。



## Test Report

No. SZXEC2002543403

Date: 23 Oct 2020

Page 1 of 6

SHEN ZHEN SHI NUO DE SI TE TECHNOLOGY CO., LTD

FA ER DA GONG YE YUAN JUN XIN LU NIU HU GUAN LAN SHENZHEN CITY CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : SILICONE (in Chinese as:矽胶布 矽胶片 绝缘片 硅胶垫)

SGS Job No. : RP20-023016 - SZ  
Model No. : NDST  
Client Ref. Info. : UL, E338508, ndst-CP-120, ndst-SB-110, ndst-sp-001  
Date of Sample Received : 20 Oct 2020  
Testing Period : 20 Oct 2020 - 23 Oct 2020  
Test Requested : Selected test(s) as requested by client.  
Test Method : Please refer to next page(s).  
Test Results : Please refer to next page(s).  
Conclusion : Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) , and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch



Andy Ni  
Approved Signatory



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中国·深圳·龙岗区坂田吉华路430号江灏工业园4栋SGS大楼 邮编: 518129 t (86-755) 25328888 f (86-755) 83106190 e sgs.china@sgs.com

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	SZX20-025434.002	Gray silicone sheet

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL )
- (4) "-" = Not Regulated

### RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method : With reference to IEC 62321-4:2013+AMD1:2017, IEC62321-5:2013, IEC62321-7-2:2017, IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit	MDL	002
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	7
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1,000	mg/kg	8	ND
Sum of PBBs	1,000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1,000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND



# Test Report

No. SZXEC2002543403

Date: 23 Oct 2020

Page 3 of 6

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND
Dibutyl Phthalate (DBP)	1000	mg/kg	50	ND
Butyl benzyl Phthalate (BBP)	1000	mg/kg	50	ND
Bis(2-ethylhexyl) Phthalate (DEHP)	1000	mg/kg	50	ND
Diisobutyl Phthalate (DIBP)	1000	mg/kg	50	ND

Notes :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863. IEC 62321 series is equivalent to EN 62321 series  
[https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:1258637,25](https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25)
- (2) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall not apply to toys which are already subject to the restriction of DEHP, BBP, DBP and DIBP through entry 51 of Annex XVII to Regulation (EC) No 1907/2006.



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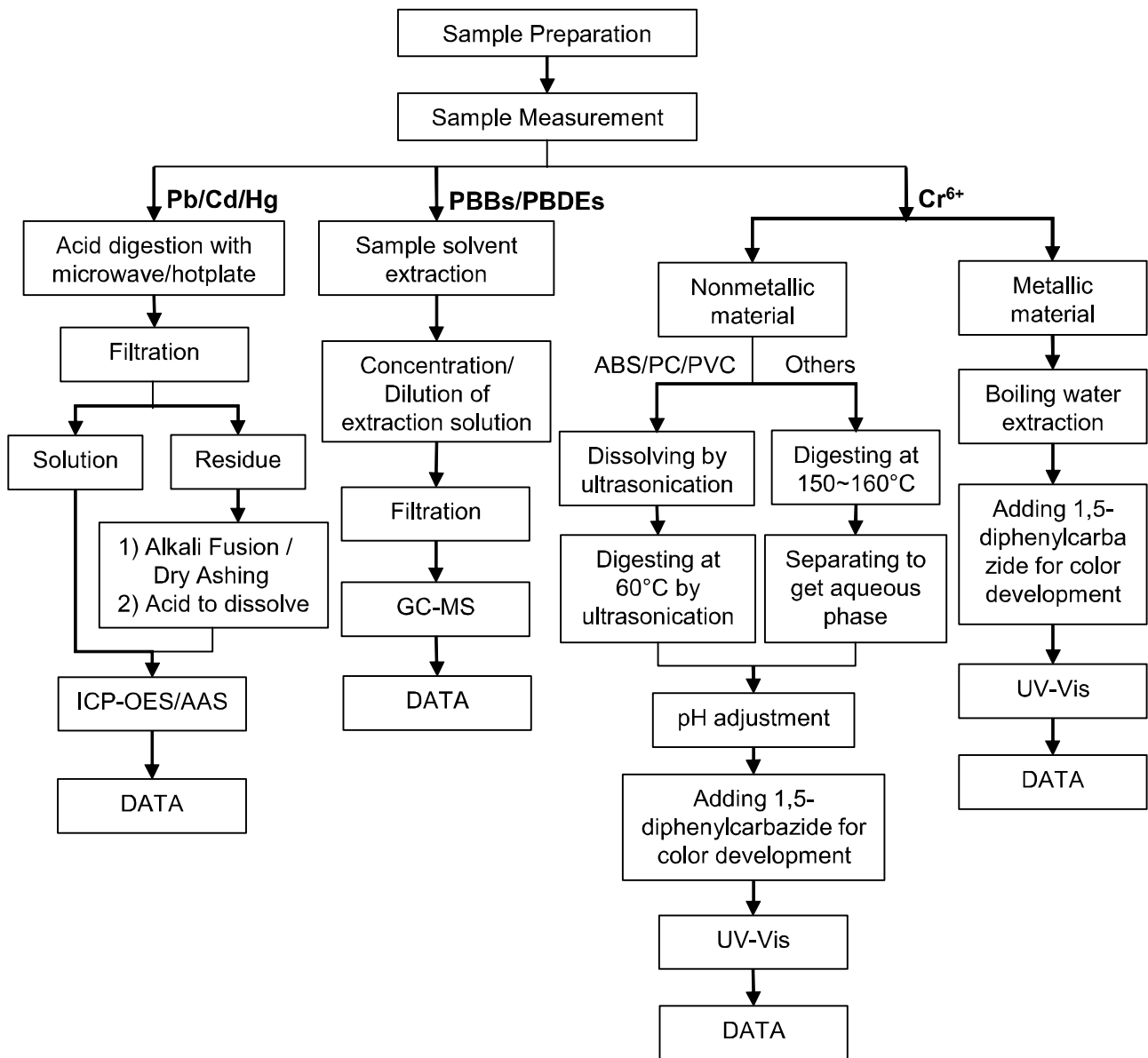
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ATTACHMENTS

**Pb/Cd/Hg/Cr<sup>6+</sup>/PBBs/PBDEs Testing Flow Chart**

1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> and PBBs/PBDEs test method excluded).



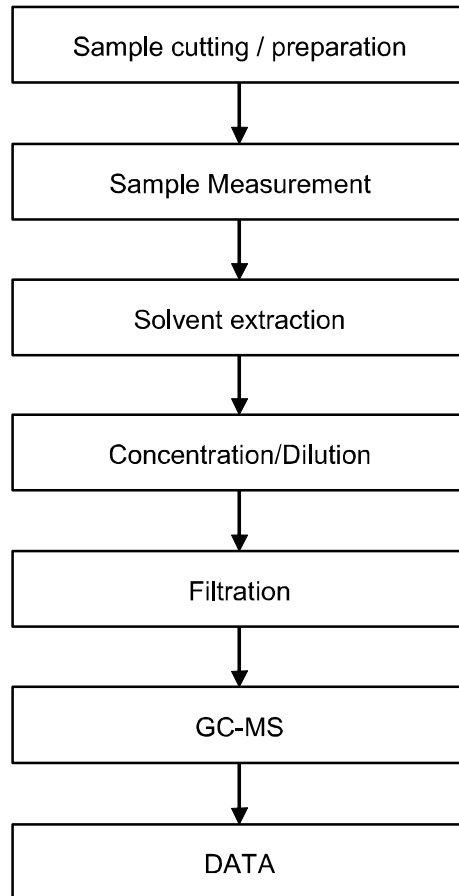
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## ATTACHMENTS

### Phthalates Testing Flow Chart

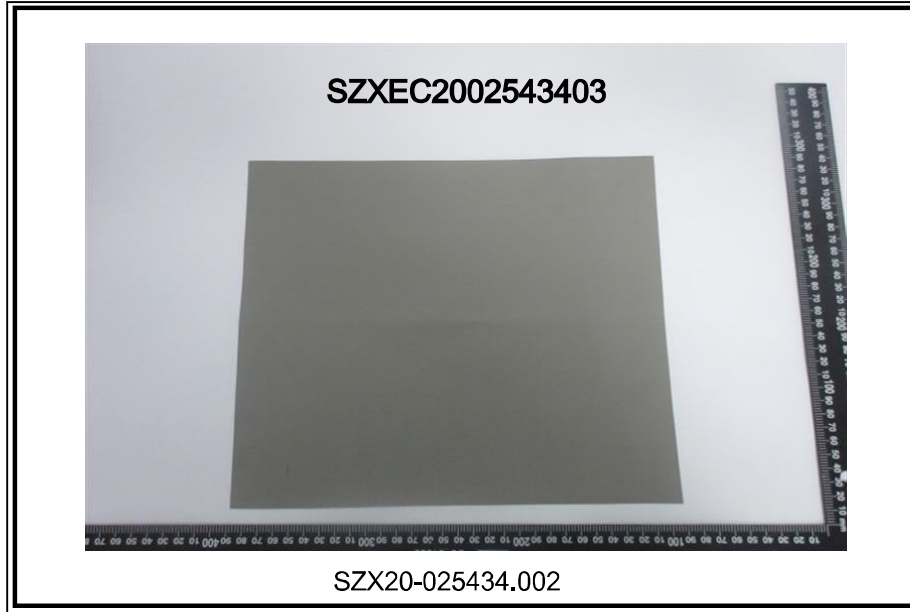


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Sample photo:



SGS authenticate the photo on original report only

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



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