

CONDUCTIVE PVC TILE  
PVC导静电型地砖

KANBO

STATIC DISSIPATIVE PVC TILE  
PVC静电耗散型地砖



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深圳市中明科技股份有限公司  
SHENZHEN HORB TECHNOLOGY CORP. LTD.



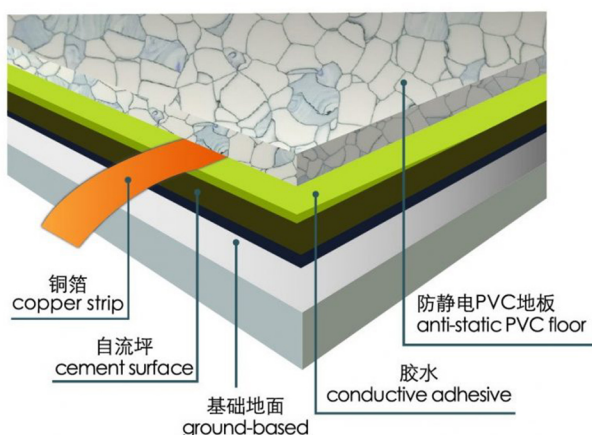
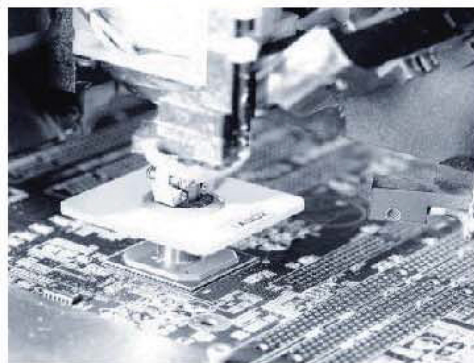
SGS





# ESD-CONTROL TILE

## 静电控制地板



### 优点

- 本公司专利表面处理技术、耐污、耐磨性能良好。
- PVC地板中含有均匀的导电材料，具有永久导电的性能。
- 防火、防腐蚀。
- 规格统一，颜色持久。

### Advantages

- Excellent wear resistance and easy deaning with the speical coating.
- Conductive material is distributed evenly in entire tile so that it has permanent conductivity.
- Anti-fire,anti-chemical properties.
- Uniform gauge and color maintenace.

静电在日常生活中无处不在，我们的身上和周围就可能有有很高的静电电压，几千伏甚至几万伏。走过化纤地毯的静电大约是35000伏，翻阅塑料说明书的静电大约7000伏，对此人们或许感受不到，然而对于一些敏感仪器来讲，这个电压就是致命的危害。

静电危害会造成相当严重的后果和损失。它可以在不经意间将昂贵的电子器件击穿，造成电子工业年损失达上百亿美元.....

现在人们越来越感到静电防护的重要性和必要性，而防静电PVC地板系统又是静电防护的重中之重。完善的防静电PVC地板系统能防止静电的产生，将静电泄漏到大地以及防止积聚微尘。

防静电PVC地板已被广泛应用到电子车间、洁净室、通讯机房等有精密仪器和设备运作的空间。

Static electricity swoon everywhere in our daily life, there might be super high static electricity voltage around us or surrounded the body, thousands of volts or even tens of thousands of volts. 35,000 volts of static electricity generates when walking pass the chemical fiber carpet, about 7000 volts when reading plastic manuals, which might not be felt by people, however it's fatal hazards to some sensitive equipments. Static electricity hazards may cause very serious cosequences and losses. It could inadvertently shoot expensive electronic devices, resulting in billions of dollars losses in electronics industry annually.....

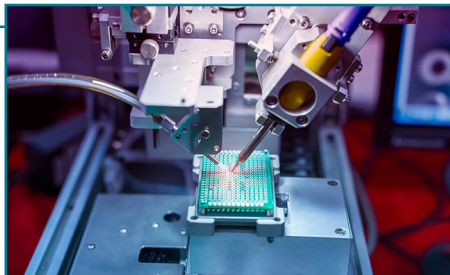
Nowadays people increasingly realize the importance and necessity of ESD protection, while the anti-static PVC floor system is the top priority of electrostatic protection. Perfect anti-static PVC floor system could prevent static electricity from generation, release static electricity into the earth to prevent accumulation of dust.

Anti-static PVC floor has been widely applied to e-shop, clean rooms, communication rooms and other precision instruments and rooms for equipment operation.

## 洁净室 CLEAN ROOMS

KANBO防静电地砖，依据其740多位研究和直走人员所拥有的高科技知识，能严格满足洁净室10级的要求。它具有低碳污染，低放射，不受室温和潮湿度影响，并高度适合有特殊维护要求或技术要求的洁净室，例如半导体、微电子、光学、航空航天、医药、生物技术等行业的洁净室。

KANBO CONDUCTIVE TILE meets requirements in clean rooms as strict as class10 based on its hightech know-how by over 740 research and manufacturing staff. It has low carbon contamination and low emission and is independent of room temperature and humidity and is highly suitable for special clean room maintenance techniques: Semiconductor, Microelectronics, Optics, Aerospace, Pharmaceuticals, Biotechnology, etc.



## 电子装备制造线及测试区

### ELECTRONICS MANUFACTURING ASSEMBLY, TEST AREAS

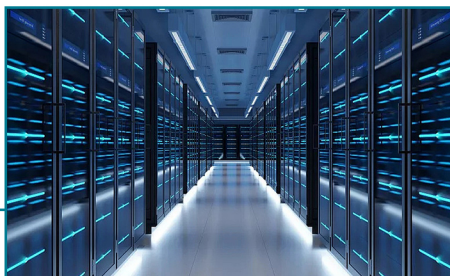
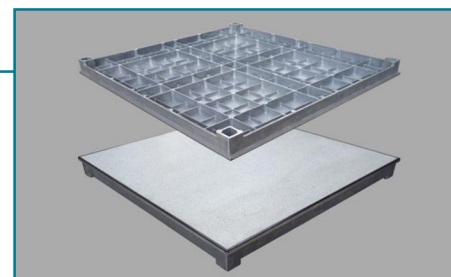
KANBO静电控制地砖是一种可以永久安装的材料，能够帮助保护敏感电子设备、装配线，以及保护产品免受人为制造的静电干扰。

KANBO ESD-CONTROL TILE is a permanently installed material that helps to protect sensitive electronic devices, assemblies and products from personnel-generated electrostatic discharge.

## 通路地板 ACCESS FLOORING

KANBO静电控制地砖，适合在通路地板上使用。它可以轻易地被开孔而不会导致毛边或导致地砖出现裂纹或裂缝。高架地板或通路地板的主要制造商都有丰富的使用KANBO静电控制地砖的经验。

KANBO ESD-CONTROL TILE is suitable for use on access flooring. It can easily be perforated without risk of rough edges or the tile cracking or breaking. Major manufacturers of raised access floors are experienced in the use of KANBO ESD Control tile



## 计算机或电子设备以及电信环境

### COMPUTER AND ELECTRONIC EQUIPMENT AND TELECOMMUNICATIONS ENVIRONMENTS

KANBO静电控制地砖，能对进入到电脑终端或其他敏感电子设备的静电放射问题，进行良好的控制，以阻止对内部电路的破坏，非正常的进入或恢复，及计算机失忆或其他误操作。它能保护大型数据处理设施，计算机化的排版和制图设备，过程控制设备，通信设备，及其他静电敏感的设备及仪器。

KANBO ESD-CONTROL TILE controls static discharges into computer terminals or other sensitive electronic equipment, thus preventing damage to internal circuitry, incorrect entries or retrieval, loss of computer memory or other malfunction. It protects large data processing facilities, computerized typesetting and drafting equipment, process control equipment, communications installations, and other static sensitive equipment and instrument.

## 医疗保健场所 HEALTH CARE

KANBO静电控制地砖，帮助控制由于静电放射导致的非自愿的人体动作，阻止危险的静电放射直接波及病人，及在使用易燃的麻醉剂的时候，预防火灾或爆炸。

KANBO ESD-CONTROL TILE helps to control involuntary personnel movement caused by electrostatic discharge, prevent hazardous static discharge directly into patients and prevent fire or explosion where flammable anesthetics are used.





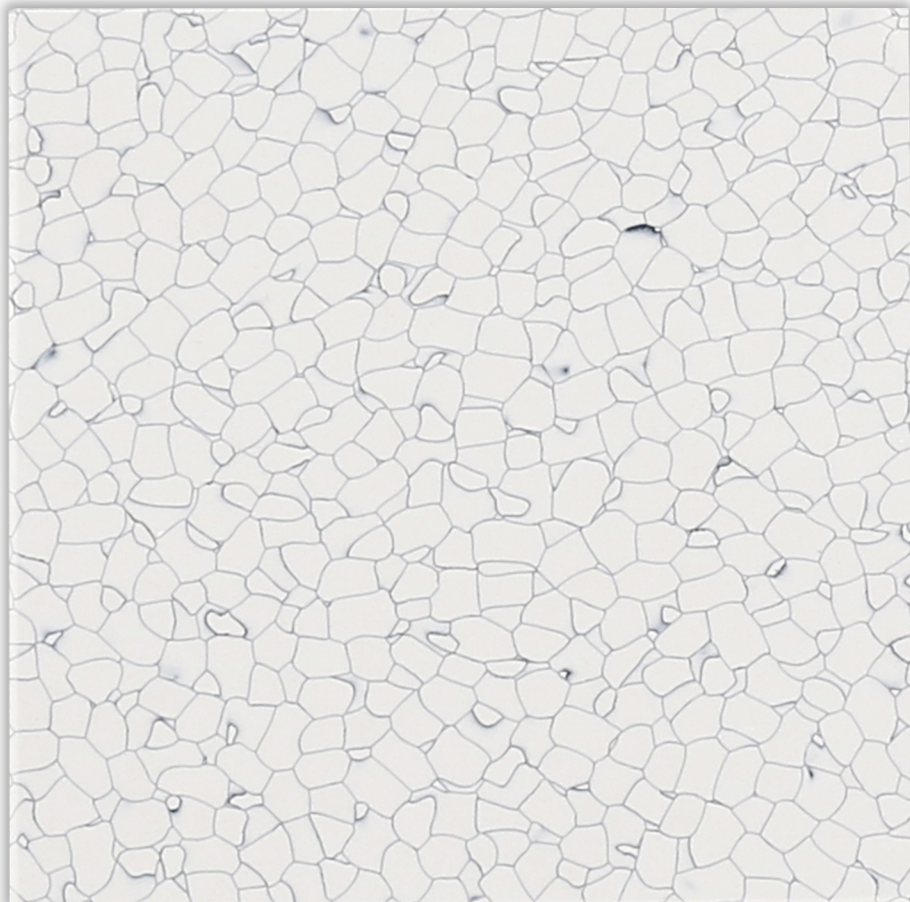


KANBO导电型地砖及静电耗散型地砖  
尺寸: 600x600x2.0/2.5/3.0mm

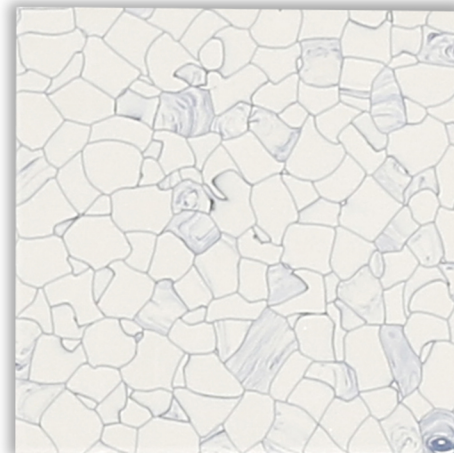
Conductive Tile, Static-Dissipative Tile  
SIZE: 600x600x2.0/x2.5/3.0mm



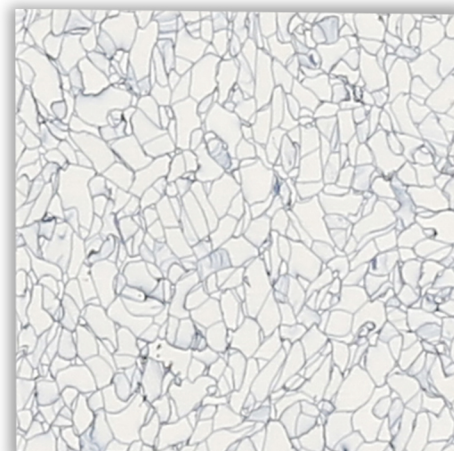
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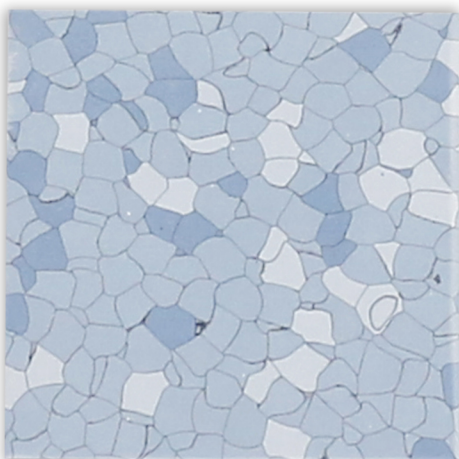
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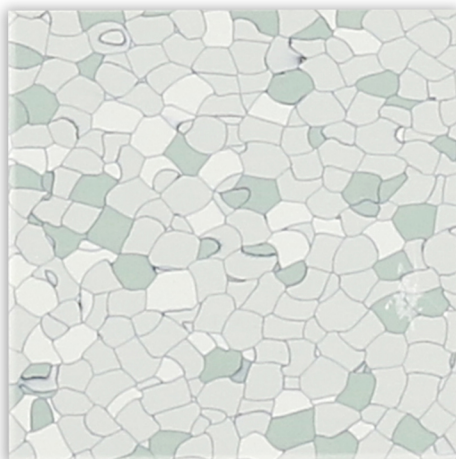
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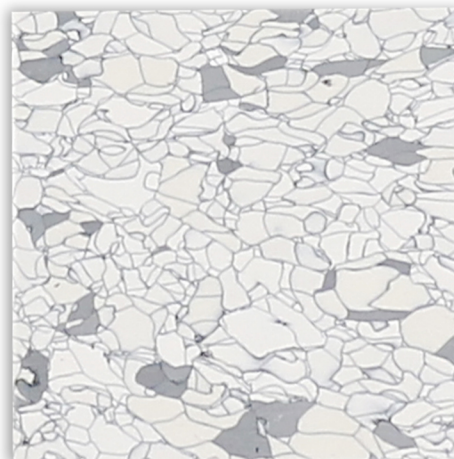
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KB-8001



KB-8002



KB-6004



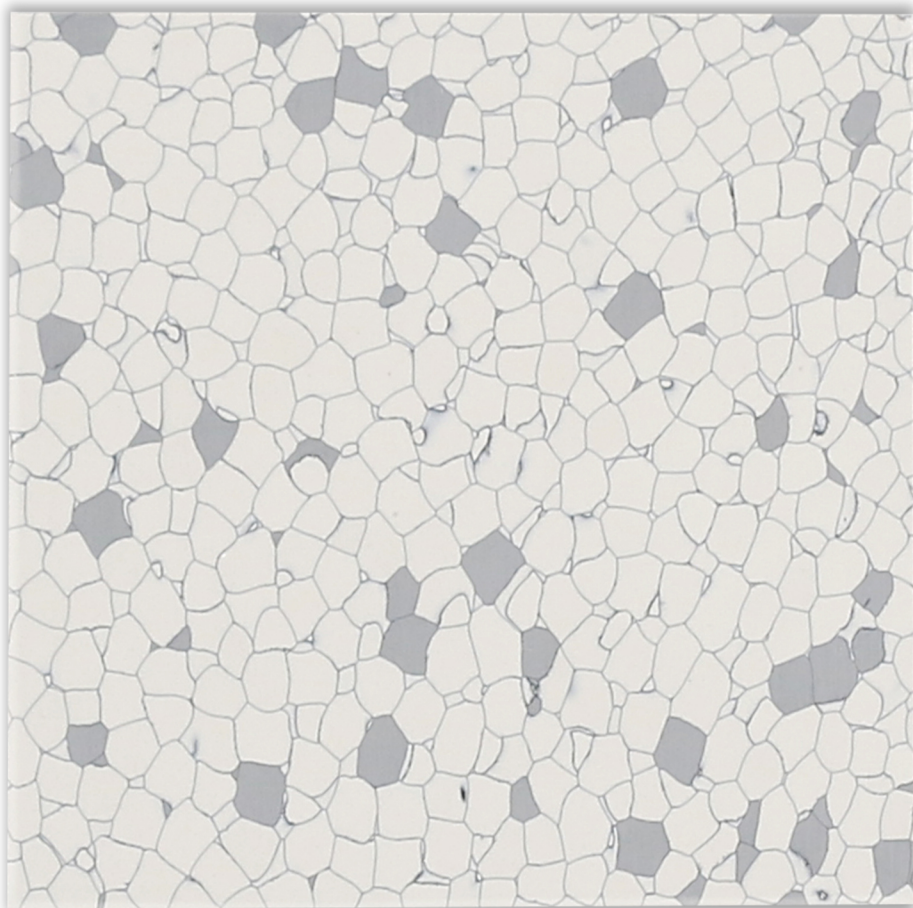


KANBO导电型地砖及静电耗散型地砖  
尺寸: 600x600x2.0/2.5/3.0mm

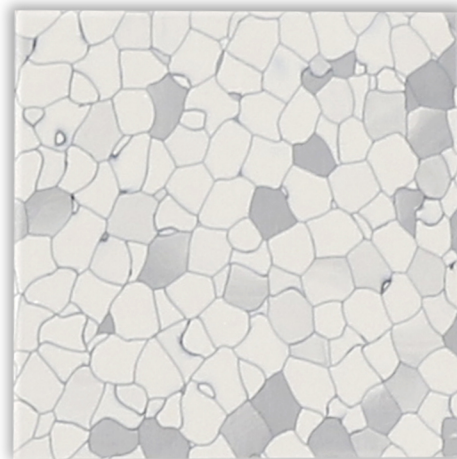
Conductive Tile, Static-Dissipative Tile  
SIZE: 600x600x2.0/x2.5/3.0mm



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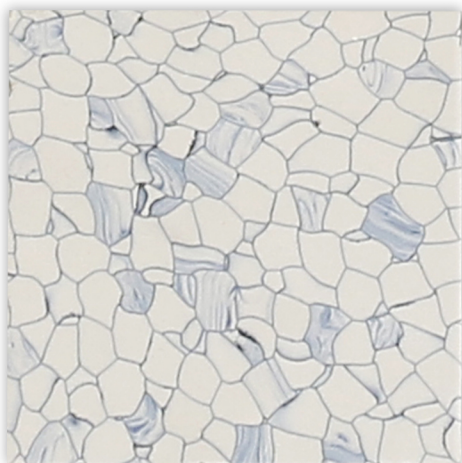
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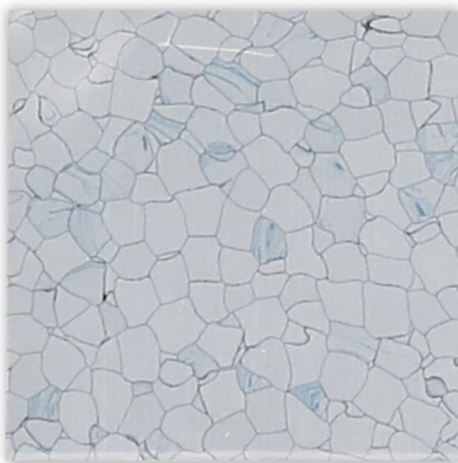
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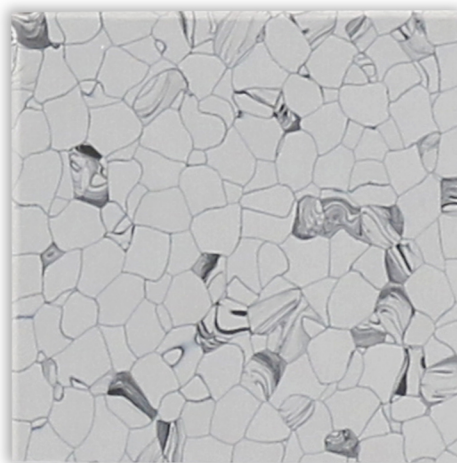
KB-6006



KB-6009



KB-8003



KB-8004





## KANBO WELDING ROD

KANBO welding rod(4mm)is available in twelve colors

▲ Black

▲ Dark grey

▲ Light grey

▲ White

▲ Blue

▲ Green

▲ Warm grey

▲ Beige

▲ Light beige

▲ Pink

▲ Light yellow

▲ Yellow

## 保证 WARRANTY

HORB公司保证, 在购买之后的一年内, 产品绝无材料及工艺上的缺陷。如果遵照HORB公司所推荐的程序进行安装和维护时, HORB公司进一步保证其10年的保质期。

这些保证不包括由于以下原因引起的不满、问题或损坏: (1) 安装工艺不当; (2) 未遵照HORB公司所推荐的程序进行安装和维护 (推荐的安装和维护指南可从你的经销商处得到, 或直接联系HORB公司); (3) 由于使用而导致光泽度下降; (4) 由于意外, 破坏性的挖掘, 磨蹭, 刮擦或者凹坑等引起的损坏; (5) 由于基础地面的不规范, 包括但不限于潮湿, 碱性, 静液压等。

以上保证明确取代任何其他的明确的或暗含的保证, 包括但不限于, 任何暗含的商务可行性或特殊用途适用性的保证。

HORB CO.,Ltd warrants, for a Period of one year after Purchase, that its Products are from defects in materials and workmanship and further warrants, for a Period of ten years after installation that when installed and maintained in accordance with procedures recommended by HORB CO.,Ltd.

THESE WARRANTIES DO NOT COVER: (1)workmanship of installation;(2)dissatisfaction, Problems or damage due to installation or maintenance other than as recommended by HORB CO.,Ltd available from your dealer or by writing HORB CO.,Ltd Customer Services Team; (3)Recommended installation and maintenance instructions are reduction in gloss from use; (4)damage due to accidents, gouges, scuffs, scratches or indentations;(5)dissatisfaction problems or damage due to irregularities caused by subfloor, including but not limited to moisture alkali or hydrostatic pressure in subfloor.

These warranties are expressly in lieu of any other warranties, express or implied, Including but not limited to any implied warranty of merchantability or fitness for a particular purpose.

## 安装 INSTALLATION

KANBO导电地砖或静电耗散型地砖应该被安装在水平的、光滑的、无缝隙的基础地面上。残余湿度应该根据CM DUMB 测试在2.5%以下, 地砖、胶水及安装区应达到安装前24小时内至少18度的温度, 用质量好的10<sup>5</sup>欧姆以下的导电胶水来粘地砖。关于进一步的安装细节问题, 欢迎联系我们。

KANBO Conductive tile and Static-Dissipative tile should be installed on sub floors that are leveled, smooth and free of cracks. Residual humidity should be under 2.5% tested with the CM Dumb test, Tiles, adhesive and installation site should reach a temperature of at least 18°C at least 24 hours before installation and paste the tiles with qualified conductive glue below 10<sup>5</sup> Ohm for further details on installation methods please ask us.

## 维护 CARE AND MAINTENANCE

用打磨机及好的中性洗涤剂来清洁地面。微脏的地面可以用湿拖把擦, 但也应该定期用机器擦。严重性或带黑点可以用地面清洁机器来清洁, 人造的清洁垫等其他商用的清除方法。在任何擦或清除操作之后, 必须用清水冲洗以清除所有残余的清洁剂。

如有必要, 可定期用导电蜡对地砖表面进行维护。

未尽事项, 欢迎联系我们。

Clean floor by machine-scrubbing with a good neutral detergent. Lightly soiled may be damp mopped but also should be periodically machine scrubbed. Severe soiling or black marking can be removed with a floor cleaning machine, synthetic stripping pad and a commercial stripping solution. Clear water rinsing is necessary after any scrubbing or stripping pad and a commercial stripping solution. Clear water rinsing is necessary after any scrubbing or stripping operation to remove all cleaner. Floor maintenance should apply and grinding. If necessary, can maintenance the surface of brick by conductive wax periodically. For detailed information please ask us.

## 质量控制/技术支持 QUALITY CONTROL/TECHNICAL ASSISTANCE

- 1) 在发货之前, 测试导电性、色差、尺寸。
- 2) 运输前, 测试每一批导电胶水的电阻。
- 3) HORB公司销售代表, 会在评估现场安装条件及视察实际安装技术方面, 为您提供技术支持。

- 1) Random test for the conductivity, color difference and dimension before delivery.
- 2) Test each batch of conductive adhesive for electrical resistance before shipment.
- 3) HORB CO.,Ltd sales representatives are available to provide technical assistance in evaluation of on site installation condition or to review actual installation techniques.



## 产品简介 INTRODUCTION OF CONSTRUCTION

由聚氯乙烯树脂、增塑剂、稳定剂、偶联剂及导电材料等物质组成，利用塑料粒子界面间形成的导静电网络导电，具有永久性防静电功能。

This product has permanent anti-static function because it uses conductive static network formed at the interface of plastic particles.

项目 ITEM	标准依据 STANDARD	质量指标 INDEX	
尺寸 SIZE	SJ/T11236-2001 ASTM F536-98	600*600mm 610*610mm	
厚度 THICKNESS	SJ/T11236-2001 ASTM F386-11	2.0,2.5,3.0mm	
电阻 (Ω) ELECTRICAL RESISTANCE	SJ/T11236-2001 EN 1081	导静电型EC $2.5 \times 10^4 - 1.0 \times 10^6$ $10^4 - 10^6$	静电耗散型SD $1.0 \times 10^6 - 10^9$ $10^6 - 10^9$
起电电压 STATIING VOLTAGE	AATCC-134	50V	100V
	SJ/T11236-2001	IVI < 100V	
静电电压衰减期 STATIC DECAY	GJB2605-1996	≤2秒(Sec)	
	Federal Test Method 1018 Method 4046	0.01sec	
耐磨性能 (1000r) RESISTANCE TO WEAR	SJ/T11236-2001	≤0.020g/cm <sup>2</sup>	
	EN660-2	P	
防火性能 FIRE RESISTANCE	SJ/T11236-2001 ASTM E648:2009a	FV-0 Class I	
尺寸稳定性 DIMENSIONAL	ASTM F2199:09(2014) EN 434	≤0.25%	
防湿滑性 SLIP RESISTANCE WET	DIN 51130	R9	
残余凹陷度 (mm) RESIDUAL CONCAVITY	SJ/T11236-2001 EN ISO24343-1:2012	≤0.15 0.03	
色牢度 COLOR FASTNESS	ISO 105B 02	≥6	
耐化学性 CHEMICAL PRODUCTS RESISTANCE	EN ISO 26987:2012	OK	
有害化学物质测试 TOXIC TESING	GB 18586-2001 EN 71-3	OK	
28天后TVOC排放量 TVOC AFTER 28 DAYS	ISO 16000-3	<10μg/m <sup>3</sup>	



**KANBO**