



## 产品技术说明书

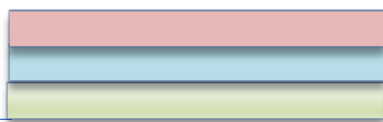
Product technical specification

### 一. 产品描述 Product Description

P57400A是以中等硬度硅胶泡棉为基材，贴合上阻燃性棉纸双面胶，在复合离型纸制作而成的硅胶泡棉胶带，专为新能源汽车 & 动力电池密封、减震和电子电器、户外设备防水防潮密封、缓冲而研发设计的一款中等硬度的硅胶泡棉胶带。

P57400A is a silicone foam tape made of medium hardness silicone foam as the base material, laminated with flame-retardant cotton paper double-sided adhesive, and made of composite release paper. It is a medium hardness silicone foam tape specially developed and designed for new energy vehicles & power battery sealing, shock absorption, and electronic appliances, outdoor equipment waterproof and moisture-proof sealing, and buffering.

### 二. 产品结构 Product structure



离型纸 Release paper

阻燃棉纸双面胶 Flame retardant cotton paper double-sided tape

硅胶泡棉 Silicone foam

### 三. 主要用途 Main Use

✧ 电池组模块与外部封装设备边框高温隔热、密封、防水。

The battery pack module and the external packaging equipment frame are high temperature insulated, sealed and waterproof.

✧ 照明、暖通设备和电气控制柜等户外设备的环境密封、防尘、防潮、气密或遮光。

Environmental sealing, dustproof, moisture-proof, airtight or light-shielding for outdoor equipment such as lighting, HVAC equipment and electrical control cabinets.

◇ 电子设备和车辆内的隔振。

Vibration isolation in electronic equipment and vehicles.

◇ 高速铁路减震、密封、缓冲和降噪。

High-speed railway shock absorption, sealing, cushioning and noise reduction.

◇ 室内外防水阻燃、小家电流水线及各种需要隔热、隔音、防静电的产品。

Indoor and outdoor waterproof and flame retardant, small household electrical wiring and various products requiring heat insulation, sound insulation and anti-static.

#### 四. 产品特性 Product Features

➤ 优异的阻燃性、耐高低温、比重低，孔径细腻、均匀、防水，减震，密封，隔热、抗紫外线、抗臭氧、非常适应机械疲劳、良好的抗压缩形变和抗蠕变性。

Excellent flame retardancy, high and low temperature resistance, low specific gravity, fine and uniform pore size, waterproof, shock absorption, sealing, heat insulation, UV resistance, ozone resistance, very adaptable to mechanical fatigue, good resistance to compression deformation and creep resistance.

#### 五. 典型性能 Typical performance

项目 Test items	典型值 Typical value	单位 Unit	测试方式 Test method
颜色 color	灰色/红色 Black/Red	-	目测 Visual inspection
材质 Material	有机硅胶 Organic Silicone	-	-
厚度 Thickness	3.2	mm	ASTM D-3652
剥离强度 Peel strength	12	N/inch	ASTM D-3330
硬度 Hardness	25±5	Shore A	ASTM D2240
密度 density	0.4	g/cm <sup>3</sup>	ASTM D792
压缩应力 Compressive stress	-	-	-
压缩永久形变 Compression set	<5	%	ASTM D3574
拉伸强度 Tensile strength	≥0.69	Kpa	ASTM D-3759

伸长率 elongation	≥100	%	ASTM D-3759
吸水性 Water absorption	0.66	%	GB/T 1034-2008
阻燃性 Flame retardant	V-0	-	UL 94
火焰扩散指数 Flame spread index	<30	Ls	-
介电常数 Dielectric Constant	4	1MHz-28GHz	ASTM D150
绝缘强度 Dielectric strength	89	-	GB/T 1695-2005
耐干弧性 Dry arc resistance	90	-	-
体积电阻率 Volume Resistivity	10 <sup>14</sup>	ohm-cm	ASTM D257
热导率 Thermal conductivity	0.065	w/° K	-
使用温度 Operating temperature	-50~200	°C	-
有毒气体排放等级 Toxic gas emission level	符合 conform to EN45545-2 R10(IN1C,IN15)		

## 六. 产品规格 Product specifications

- 1000mm\*20m
- 或其他定制

Other customization

## 七. 储存及保质期 Storage and shelf life

建议存放在清洁干燥的地方，避免日光直射、温度为20~40°C、湿度为30~70%RH 等条件下放置。

It is recommended to store it in a clean and dry place, avoid direct sunlight, at a temperature of 20~40°C and a humidity of 30~70%RH.

为保持最佳性能，本产品保存期为纳入后半年。

In order to maintain optimal performance, the shelf life of this product is six months after incorporation.



## 产品技术说明书

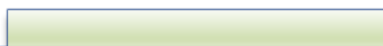
Product technical specification

### 一. 产品描述 Product Description

P57400硅胶泡棉是一种新型的高回弹、低密度的有机硅胶材料。这款硅胶泡棉用做电池箱的密封垫圈，减少电动汽车在运行过程中电池箱的颠簸、震动，同时亦实现了轻量化、自动化和低成本需求。它密封性好，低比重、高阻燃，包裹动力电池底部，起缓冲、防滑防震的作用。

P57400 silicone foam is a new type of high-resilience, low-density organic silicone material. This silicone foam is used as a sealing gasket for the battery box to reduce the bumps and vibrations of the battery box during the operation of electric vehicles, while also achieving lightweight, automation and low-cost requirements. It has good sealing, low specific gravity, high flame retardancy, wraps the bottom of the power battery, and plays a role in buffering, anti-skid and shockproof.

### 二. 产品结构 Product structure



硅胶泡棉 Silicone foam

### 三. 主要用途 Main Use

- ✧ 电池组模块与外部封装设备边框高温隔热、密封、防水。

The battery pack module and the external packaging equipment frame are high temperature insulated, sealed and waterproof.

- ✧ 照明、暖通设备和电气控制柜等户外设备的环境密封、防尘、防潮、气密或遮光。

Environmental sealing, dustproof, moisture-proof, airtight or light-shielding for outdoor equipment such as lighting, HVAC equipment and electrical control cabinets.

✧ 电子设备和车辆内的隔振。

Vibration isolation in electronic equipment and vehicles.

✧ 高速铁路减震、密封、缓冲和降噪。

High-speed railway shock absorption, sealing, cushioning and noise reduction.

✧ 室内外防水阻燃、小家电流水线及各种需要隔热、隔音、防静电的产品。

Indoor and outdoor waterproof and flame retardant, small household electrical wiring and various products requiring heat insulation, sound insulation and anti-static.

#### 四. 产品特性 Product Features

- 优异的阻燃性、耐高低温、比重低，孔径细腻、均匀、防水，减震，密封，隔热、抗紫外线、抗臭氧、非常适应机械疲劳、良好的抗压缩形变和抗蠕变性。

Excellent flame retardancy, high and low temperature resistance, low specific gravity, fine and uniform pore size, waterproof, shock absorption, sealing, heat insulation, UV resistance, ozone resistance, very adaptable to mechanical fatigue, good resistance to compression deformation and creep resistance.

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颜色 color	灰色/红色 Black/Red	-	目测 Visual inspection
材质 Material	有机硅胶 Organic Silicone	-	-
厚度 Thickness	0.6-12±0.15	mm	ASTM D-3652
硬度 Hardness	25±5	Shore A	ASTM D2240
密度 density	0.4	g/cm <sup>3</sup>	ASTM D792
压缩应力 Compressive stress	-	-	-
压缩永久形变 Compression set	<5	%	ASTM D3574

拉伸强度 Tensile strength	≥0.69	Kpa	ASTM D-3759
伸长率 elongation	≥100	%	ASTM D-3759
吸水性 Water absorption	0.66	%	GB/T 1034-2008
阻燃性 Flame retardant	V-0	-	UL 94
火焰扩散指数 Flame spread index	<30	Ls	-
介电常数 Dielectric Constant	4	1MHz-28GHz	ASTM D150
绝缘强度 Dielectric strength	89	-	GB/T 1695-2005
耐干弧性 Dry arc resistance	90	-	-
体积电阻率 Volume Resistivity	10 <sup>14</sup>	ohm-cm	ASTM D257
热导率 Thermal conductivity	0.065	w/° K	-
使用温度 Operating temperature	-50~200	°C	-
有毒气体排放等级 Toxic gas emission level	符合 conform to EN45545-2 R10(IN1C,IN15)		

## 六. 产品规格 Product specifications

- 1000mm\*20m
- 或其他定制

Other customization

## 七. 储存及保质期 Storage and shelf life

建议存放在清洁干燥的地方，避免日光直射、温度为20~40°C、湿度为30~70%RH 等条件下放置。

It is recommended to store it in a clean and dry place, avoid direct sunlight, at a temperature of 20~40°C and a humidity of 30~70%RH.

为保持最佳性能，本产品保存期为纳入后半年。

In order to maintain optimal performance, the shelf life of this product is six months after incorporation.



## 产品技术说明书

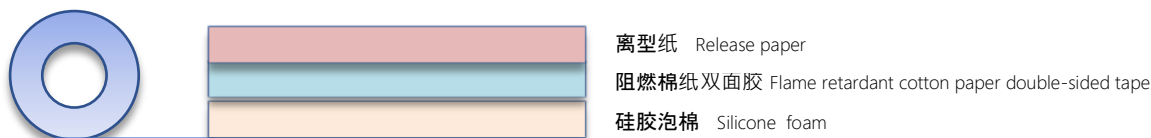
Product technical specification

### 一. 产品描述 Product Description

P57500A是以中等硬度硅胶泡棉为基材，贴合上阻燃性棉纸双面胶，在复合离型纸制作而成的硅胶泡棉胶带，专为新能源汽车 & 动力电池密封、减震和电子电器、户外设备防水防潮密封、缓冲而研发设计的一款中等硬度的硅胶泡棉胶带。

P57500A is a silicone foam tape made of medium hardness silicone foam as the base material, laminated with flame-retardant cotton paper double-sided adhesive, and made of composite release paper. It is a medium hardness silicone foam tape specially developed and designed for new energy vehicles & power battery sealing, shock absorption, and electronic appliances, outdoor equipment waterproof and moisture-proof sealing, and buffering.

### 二. 产品结构 Product structure



### 三. 主要用途 Main Use

✧新能源汽车动力电池箱体密封、汽车或设备缓冲部件间和电池组件间的缓冲隔垫、电池液冷板的支撑。

Sealing of power battery boxes of new energy vehicles, buffer spacers between buffer components of vehicles or equipment and between battery assemblies, and support for battery liquid cooling plates.

✧轨道交通高铁/动车缓冲减震、户外设备和电子电器的防水防潮密封。

Rail transit high-speed rail/train buffer shock absorption, outdoor equipment and electronic appliances waterproof and moisture-proof sealing.

#### 四. 产品特性 Product Features

- 发泡均匀细腻轻巧，环保无毒无味，符合严格的烟雾和毒性规范。粘性好。

The foam is uniform, delicate and lightweight, environmentally friendly, non-toxic and odorless, and meets strict smoke and toxicity regulations. Good viscosity.

- 压缩回弹性持久，恶劣户外环境下应力损失小，永久变形小，使产品具有超强的防水气密性能，满足客户 IPX8 防水要求。

The compression resilience is long-lasting, the stress loss is small in harsh outdoor environments, and the permanent deformation is small, which makes the product have super waterproof and airtight performance and meets the customer's IPX8 waterproof requirements.

- 很好的耐候、耐高低温性能以及阻燃性能等。

Very good weather resistance, high and low temperature resistance and flame retardant properties.

#### 五. 典型性能 Typical performance

项目 Test items	典型值 Typical value	单位 Unit	测试方式 Test method
颜色 Color	灰色、黑色、白色 Gray, black, White	-	目测 Visual inspection
材质 Material	硅胶泡棉 Silicone rubber	-	-
厚度 thickness	5	mm	ASTM D374
剥离强度 Peel strength (90°)	1000	N/inch	ASTM D-3330
密度 density	0.38±0.04	g/cm <sup>3</sup>	GB/T6343-2009
硬度 hardness	25±5	Shore C	GB/T531.1-2008
压缩应力 Compression stress	≥50 @25% ≤250 @50% ≤850 @70%	KPa	ASTM D1056
压缩形变 Compression deformation	<5 @100°C&22h	%	ASTM D1056

拉伸强度 tensile strength	>300	KPa	ASTM D412
伸长率 Elongation	≥80	%	ASTM D412
吸水率 Water absorption rate	<5 (室温下 24 小时) <5 (24 hours at room temperature)	%	-
阻燃性 Flame retardancy	V0 (厚度 ≥2mm) V0 (thickness ≥ 2mm)	-	UL-94
有毒气体排放 Toxic gas emissions	合格 qualified	-	SMP - 800C
体积电阻率 Volume resistivity	>10 <sup>13</sup>	Ohm-cm	ASTM D 257
推荐使用温度范围 Recommended temperature range	-55--200	°C	-

## 六. 产品规格 Product specifications

- 500mm\*25m
- 或其他定制

Other customization

## 七. 储存及保质期 Storage and shelf life

建议存放在清洁干燥、阴凉的地方，防止包装破损，避免阳光直射。存储温度为10 ~ 40°C，湿度为40 ~ 60%。

It is recommended to store it in a clean, dry and cool place to prevent package damage and direct sunlight. The storage temperature is 10 ~ 40 °C and the humidity is 40~60%.

为保持最佳性能，本品应在生产之日起12个月内使用。

To maintain the best performance, this product should be used within 12 months from the date of production.



## 产品技术说明书

Product technical specification

### 一. 产品描述 Product Description

P57600硅胶泡棉是一种新型的高回弹、低密度的有机硅胶材料。这款硅胶泡棉用做电池箱的密封垫圈，减少电动汽车在运行过程中电池箱的颠簸、震动，同时亦实现了轻量化、自动化和低成本需求。它密封性好，低比重、高阻燃，包裹动力电池底部，起缓冲、防滑防震的作用。

P57600 silicone foam is a new type of high-resilience, low-density organic silicone material. This silicone foam is used as a sealing gasket for the battery box to reduce the bumps and vibrations of the battery box during the operation of electric vehicles, while also achieving lightweight, automation and low-cost requirements. It has good sealing, low specific gravity, high flame retardancy, wraps the bottom of the power battery, and plays a role in buffering, anti-skid and shockproof.

### 二. 产品结构 Product structure



硅胶泡棉 Silicone foam

### 三. 主要用途 Main Use

- ◇ 电池组模块与外部封装设备边框高温隔热、密封、防水。

The battery pack module and the external packaging equipment frame are high temperature insulated, sealed and waterproof.

- ◇ 照明、暖通设备和电气控制柜等户外设备的环境密封、防尘、防潮、气密或遮光。

Environmental sealing, dustproof, moisture-proof, airtight or light-shielding for outdoor equipment such as lighting, HVAC equipment and electrical control cabinets.

◇ 电子设备和车辆内的隔振。

Vibration isolation in electronic equipment and vehicles.

◇ 高速铁路减震、密封、缓冲和降噪。

High-speed railway shock absorption, sealing, cushioning and noise reduction.

◇ 室内外防水阻燃、小家电流水线及各种需要隔热、隔音、防静电的产品。

Indoor and outdoor waterproof and flame retardant, small household electrical wiring and various products requiring heat insulation, sound insulation and anti-static.

#### 四. 产品特性 Product Features

- 优异的阻燃性、耐高低温、比重低，孔径细腻、均匀、防水，减震，密封，隔热、抗紫外线、抗臭氧、非常适应机械疲劳、良好的抗压缩形变和抗蠕变性。

Excellent flame retardancy, high and low temperature resistance, low specific gravity, fine and uniform pore size, waterproof, shock absorption, sealing, heat insulation, UV resistance, ozone resistance, very adaptable to mechanical fatigue, good resistance to compression deformation and creep resistance.

#### 五. 典型性能 Typical performance

项目 Test items	典型值 Typical value	单位 Unit	测试方式 Test method
颜色 color	灰色 Black	-	目测 Visual inspection
材质 Material	有机硅胶 Organic Silicone	-	-
厚度 Thickness	0.6-12±0.15	mm	ASTM D-3652
硬度 Hardness	25±5	Shore A	ASTM D2240
密度 density	0.4	g/cm <sup>3</sup>	ASTM D792
压缩应力 Compressive stress	-	-	-
压缩永久形变 Compression set	<5	%	ASTM D3574

拉伸强度 Tensile strength	≥0.69	Kpa	ASTM D-3759
伸长率 elongation	≥100	%	ASTM D-3759
吸水性 Water absorption	0.66	%	GB/T 1034-2008
阻燃性 Flame retardant	V-0	-	UL 94
火焰扩散指数 Flame spread index	<30	Ls	-
介电常数 Dielectric Constant	4	1MHz-28GHz	ASTM D150
绝缘强度 Dielectric strength	89	-	GB/T 1695-2005
耐干弧性 Dry arc resistance	90	-	-
体积电阻率 Volume Resistivity	10 <sup>14</sup>	ohm-cm	ASTM D257
热导率 Thermal conductivity	0.065	w/° K	-
使用温度 Operating temperature	-50~200	°C	-
有毒气体排放等级 Toxic gas emission level	符合 conform to EN45545-2 R10(IN1C,IN15)		

## 六. 产品规格 Product specifications

- 1020mm\*5m/10m/20m
- 或其他定制

Other customization

## 七. 储存及保质期 Storage and shelf life

建议存放在清洁干燥的地方，避免日光直射、温度为20~40°C、湿度为30~70%RH 等条件下放置。

It is recommended to store it in a clean and dry place, avoid direct sunlight, at a temperature of 20~40°C and a humidity of 30~70%RH.

为保持最佳性能，本产品保存期为纳入后半年。

In order to maintain optimal performance, the shelf life of this product is six months after incorporation.



## 产品技术说明书

Product technical specification

### 一. 产品描述 Product Description

YS-230是一种由有机硅发泡而成的硅胶泡棉。相较于传统橡胶泡棉，该材料具有无毒环保、抗压缩永变形和高阻燃等特性。该材料能够耐受极端温度、紫外线和臭氧，具有卓越的耐机械疲劳性能，是密封、减震、隔音、保护、绝缘、和防火的理想材料。

YS-230 is a silicone foam made from organic silicon foam. Compared to traditional rubber foam, this material has characteristics such as non toxicity, environmental protection, resistance to compression permanent deformation, and high flame retardancy. This material can withstand extreme temperatures, ultraviolet rays, and ozone, and has excellent mechanical fatigue resistance. It is an ideal material for sealing, shock absorption, sound insulation, protection, insulation, and fire prevention.

### 二. 产品结构 Product structure



硅胶泡棉 Silicone foam

### 三. 应用领域 Application field

✧ 飞机/高铁/汽车/储能/电信与电气机柜/通讯设备/照明/智能设备/电缆与光纤等

Aircraft/high-speed rail/automotive/energy storage/telecommunications and electrical cabinets/communication equipment/lighting/intelligent equipment/cables and optical fibers, etc

### 四. 主要用途 Main Use

✧ 高铁减震缓冲

High speed rail shock absorption and buffering

◇ **吸音降噪**

Sound absorption and noise reduction

◇ **电磁与射频屏蔽衬垫**

Electromagnetic and RF shielding pads

◇ **PACK 箱密封防水**

PACK box sealing and waterproofing

◇ **液冷板减震**

Liquid cooled plate shock absorption

◇ **室外电气衬垫**

Outdoor electrical gaskets

◇ **汽车隔热**

Outdoor electrical gaskets

◇ **防爆阀**

Explosion proof valve

## 五. 产品特性 Product Features

➤ **优异的抗压缩形变、抗蠕变性能**

Excellent resistance to compression set and creep

➤ **在极端温度下优异的性能**

Excellent performance in extreme temperatures

➤ **满足最严格的的UL 阻燃等级**

Meet the most stringent UL flame retardant

➤ **耐机械疲劳**

Resistance to mechanical fatigue

➤ **氧指数高、低烟、低毒**

High oxygen index, low smoke, low toxicity

➤ 抗臭氧及紫外线

Resistant to ozone and ultraviolet rays ratings

六. 典型性能 Typical performance

检查项目	检测标准	单位	检测结果
硬度	ASTMD 2240	shore A	10-15
拉伸强度	ASTMD 412	Kpa	280-440
伸长率	ASTMD 412	%	80-100
耐温范围	En344	°C	-60-250
比重/密度	ASTM D1056	g/cm <sup>3</sup>	0.32-0.40
导热系数	ASTM C518-17	W/m-k	0.0484
吸水率	ASTM D1056	%	0.70
低温折弯	ASTM D1056-14	-55°	-55° 折弯合格
防火等级	ASTM U.L	----	UL94V-0
压缩应力	ASTM D1056	Kpa (压 25%)	75-100
	ASTM D1056	Kpa (压 40%)	100-130
压缩永久变形量	ASTM D1056	% (在 70° C 测试)	0.6
	ASTM D1056	% (在 100° C 测试)	0.98

七. 储存及保质期 Storage and shelf life

建议存放在清洁干燥的地方，防止包装破损，避免与挥发性溶剂放在一起。存储温度为4 ~ 26 °C，湿度为40 ~ 50%。

It is recommended to store them in a clean and dry place to prevent package damage and volatile solvents. The storage temperature is 4~26 °C, and the humidity is 40~50%.