

纳米银高透明电磁屏蔽膜

规格书

产品介绍 (Product Introduction): 电磁屏蔽膜 EMS film

纳米银高透明电磁屏蔽膜是采用先进的薄膜导电技术，利用卷对卷精密涂布的方式，在透明的有机薄膜材料上喷涂透明纳米银线墨水，并经过一系列后工艺处理而得到的透明导电薄膜，完全拥有自主知识产权，产品通过 ISO9001 和 ROHS 认证，主要应用与触摸屏和电磁屏蔽等领域。

Silver nanowire high transparent electromagnetic shielding film is an advanced thin - film conductive technology, the way of Precision coating by using Coil to Coil, spraying transparent silver nanowire ink on transparent organic thin film material, after a series of post-processing, the transparent conductive film has its own intellectual property rights, the products are certified by ISO9001 and ROHS, mainly used in the fields of touch screen and electromagnetic shielding.

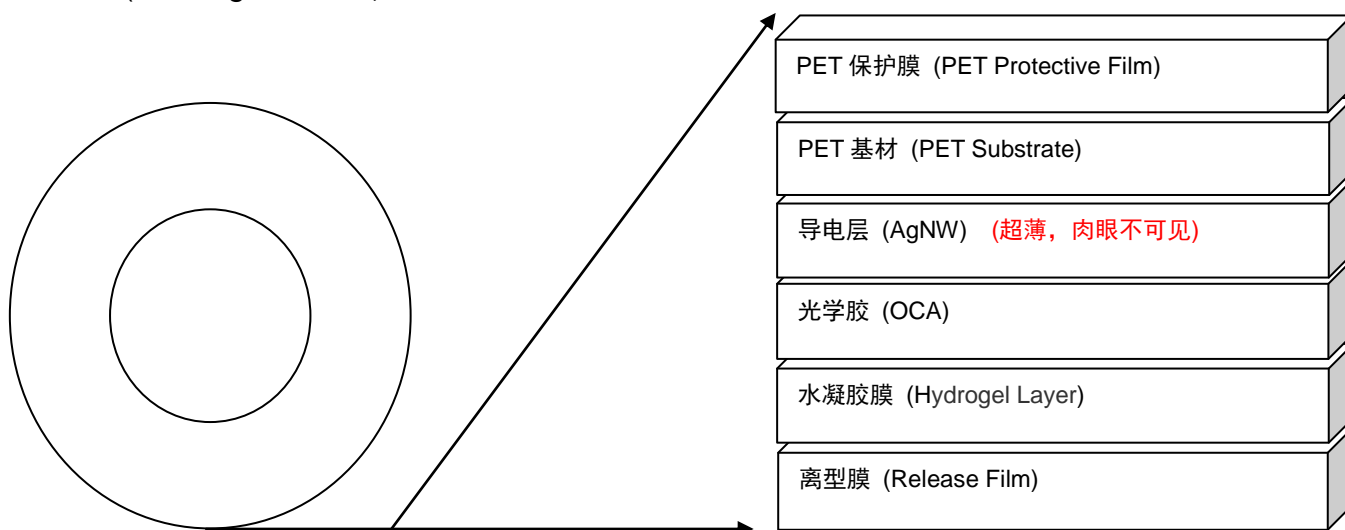
产品型号 (Product Type) ES-4 ES-9

参数 (Parameters) : 方阻 Sheet Resistance: 4 Ω/\square , 9 Ω/\square
宽幅 Width: 500 mm, 620 mm, 760 mm,
1200 mm (2018Q3), 1600 mm (2018Q3)

产品结构 (Product Structure)

结构 (Structure)

收卷方向 (Winding Direction)



请注意 (Notice) :

(1) 在撕最外层的离型膜的时候不要误把水凝膜撕掉。

Do not tear off the hydrogel layer when uncover the top release film.

(2) 肉眼观察可见五层结构，导电层极薄，肉眼不可见。

Five layers can be detected by naked eye. The AgNW conductive layer is super thin and cannot be seen by naked eye.

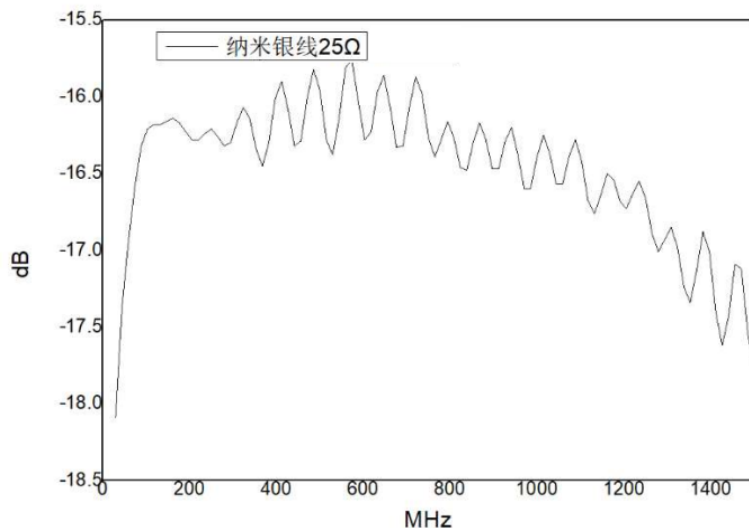
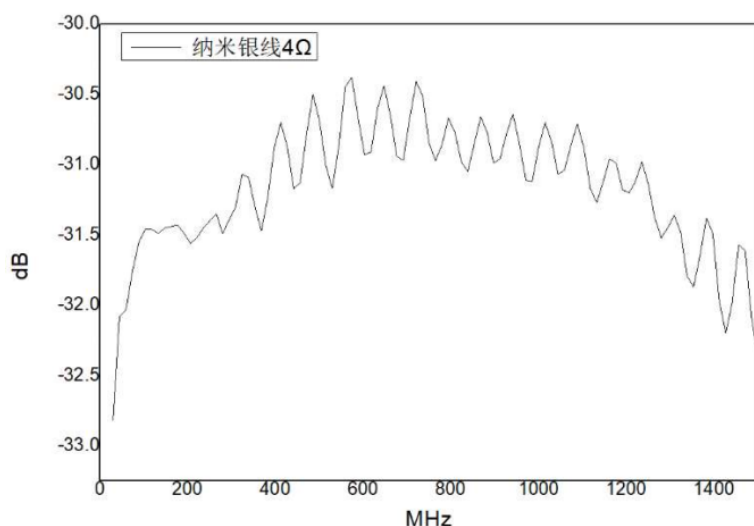
产品性能 (Property) 针对 ES-9 (宽幅 500mm) 产品测试

测试项目 Item		单位 Unit	规格值 Specification	测试工具及方式 Test Instrument & Methodology
外形尺寸 Dimension	产品宽幅 Width	mm	500	Gauge
	免责区域 Disclaim area	mm	5*2	Gauge
	厚度 Thickness	um	380±30	Gauge
光学特性 Optical	全光线穿透率 Transmittance	%	>82	hunterlab
	雾度 Haze	%	≤6.5	hunterlab
	色度指数 (b*) Color (b*)	-	≤5.5	hunterlab
AgNW 性质 AgNW property	表面阻抗值 Resistance	Ω/□	9±2	4 点探针 Four-point probe
	方阻均匀性 R uniformity	-	≤10%	

测试项目 Test item		单位 Unit	规格值 Specification	测试工具及方式 Test Instrument & Methodology
收缩率 Shrinkage Rating	MD 方向	%	<1%	JIS K 7133 (150°C 60min)
	TD 方向	%	<1%	
附着力 Adhesion	AgNW 层	-	5B	百格测试 Cross-hatch tester; 3M (610) tape
表面硬度 Pencil Hardness	AgNW 层	-	HB	JIS K5600 (Load 500g)
	H/C 层	-	2H	JIS K5600 (Load 500g)

信赖性测试项目 Reliability test items	测试条件 Test Condition	规格值 Specification
高温高湿 High Temperature High	85°C 85%RH 240hrs	方阻变化率≤30%
高温保存 High Temperature	80°C 240hrs	
冷热冲击 Thermal Cycle	-40°C(2hrs) ~ 80°C(2hrs) 50 cycles	
氙灯老化 Xenon Aging	1000W/m ² @250-1100nm 240hrs	

电磁屏蔽效率 (SE)



产品存放注意事项 (Storage Condition)

- (1) 请于 $20^{\circ}\text{C}\pm 10^{\circ}\text{C}$, $50\%\pm 20\%\text{RH}$ 环境下保存，避免高温高湿环境下放置。
Temperature: $20^{\circ}\text{C}\pm 10^{\circ}\text{C}$; Humidity: $50\%\pm 20\%\text{RH}$.
- (2) 请将产品水平放置，避免挤压、堆叠。
Please place the product level to avoid pressing.

产品使用注意事项(Precautions For Use)

- (1) 请佩戴手套接触本产品。在揭开保护膜时，请勿把胶层撕掉。
Please handle the product with gloves on. Please do not tear off the adhesive layer when uncover the protective film.
- (2) 在将产品贴合到玻璃之前，请先撕掉最表面的离型膜，露出下面的水凝胶膜。贴合时，请先在玻璃上喷少量水（赶气泡），然后将水凝膜面贴合在玻璃上，自然晾干 12 小时。（请注意，水凝胶底下是高透过率的光学胶，其作用是将水凝膜和导电膜粘合在一起，黏性很强，不可以直接贴到玻璃上，否则万一有贴合气泡无法返工）。
Before laminating the film onto glass, please tear off the top release film and expose the hydrogel layer underneath. Please spray a small amount of water on the glass before laminating the film onto glass (to prevent bubbles generation), and air-dry the glass after lamination for 12 hours. (Notice: There is a layer of optical clear adhesive (OCA) underneath the hydrogel, the role of which is to stick the hydrogel layer and conductive film together. This high-viscosity OCA should not be laminated to the glass directly, otherwise the bubbles generated during lamination can be hardly removed.)
- (3) 请勿使用坚硬物品擦拭本产品，以防止刮伤所造成的外观不良及功能不良。
Please do not use hard objects to wipe the surface of the product, in order to prevent the scratch.

Suzhou Realmay Lightings Tech Co., Ltd.

Address: Room608, 6F, No.18 Tangjiahu Street, Pingwang, Wujiang, Suzhou, P.R.China

Tel : +86-512-62721053

Fax : +86-512-62721063

Email: realmay_tech@126.com