

测试报告

No. SHAEC1703991401 Date: Mar. 24, 2017

Page 1 of 12

杭州包尔得新材料科技有限公司
杭州下沙经济技术开发区 M18-1 地块

以下测试之样品是由申请者所提供及确认: BD-6xx 硅胶

SGS 工作编号: SP17-007261-SH
收样日期: 2017-03-08
测试周期: 2017-03-08 – 2017-03-24
测试要求: 根据客户选择测试.
测试方法: 见后续页.
测试结果: 见后续页.

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Marry Ma 马广媛
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结果总结:

序号	测试项目	测试方法	结果	结论
1	电气强度	IEC 60243-1:2013	见结果	/
2	漏电起痕试验 (PTI)	IEC 60112:2009 和 客户要求	见结果	/
3	表面电阻率	IEC 62631-3-2:2015	见结果	/
4	体积电阻率	IEC 62631-3-1:2016	见结果	/
5	介电常数和介电损耗 因子	IEC 60250:1969 和 客户要求	见结果	/

备注: 合格: 达到要求
 不合格: 未达到要求
 /: 不下判定



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1. 测试项目：电气强度

样品描述：透明硅胶片

测试方法：IEC 60243-1:2013

测试条件：

预处理条件：23 ± 2 °C，50 ± 5 % RH，48 h

绝缘介质：10#变压器油

不等直径电极：下电极直径：75 mm

上电极直径：25 mm

施加电压频率：50 Hz

升压速率：2000 V/s

测试结果：

试样	击穿电压(kV)	试样壁厚(mm)	电气强度(kV/mm)
1	39.84	3.59	11.10
2	37.76	3.81	9.91
3	46.00	5.44	8.46
4	50.21	4.76	10.55
5	47.80	5.27	9.07
中值	46.00	--	9.91



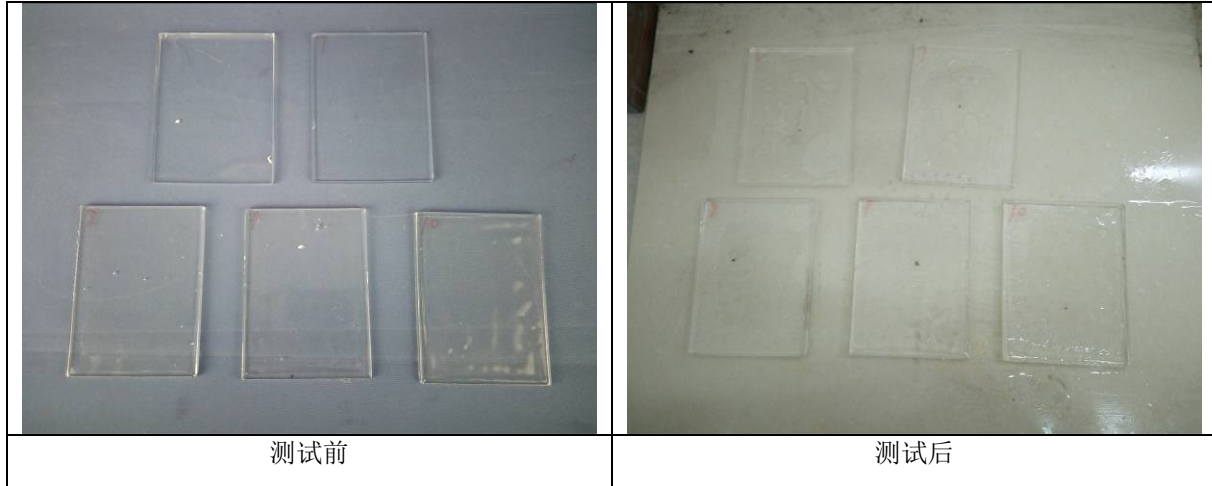
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测试照片:



设备信息:

设备	型号	设备编号	校准日期	下次校准日期
耐压测试仪控制 台	JTKZ-5KVA	P-207-1	2016-6-2	2017-6-1



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2. 测试项目：漏电起痕测试 (PTI)

样品描述：透明硅胶片

测试方法：IEC 60112:2009 和客户要求

样品预处理：

预处理条件：24h/23±5℃/50±10%RH

样品表面状态：表面光滑无划痕

测试前用无水乙醇清洁

测试条件：

测试溶液：溶液 A

液滴规格：50 滴等于 1.0g

滴落间隔：30±5s

测试结果：

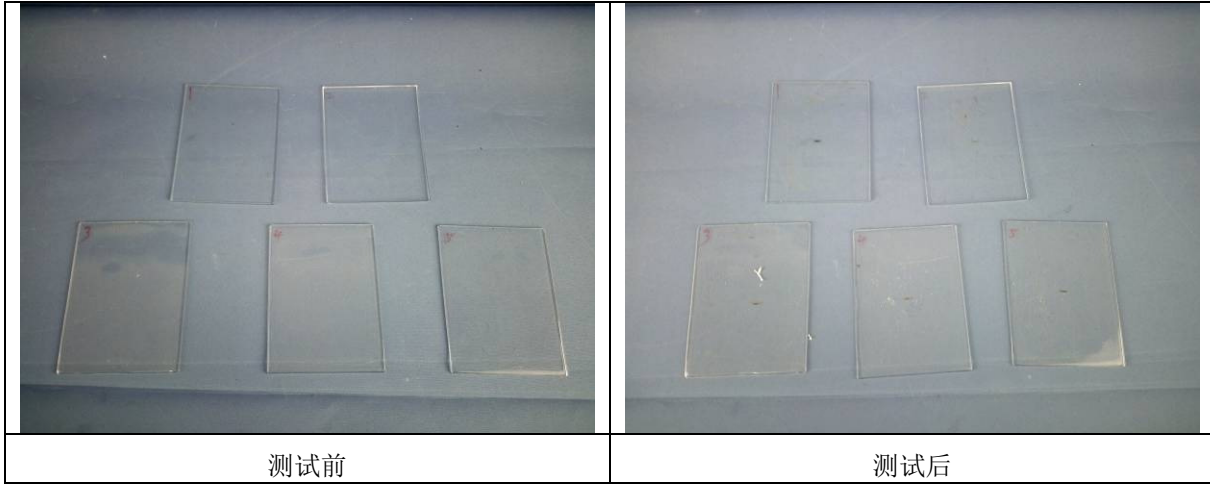
测试编号	测试电压	测试结论
1	AC 500V (50 滴)	没有电痕化失效
2		没有电痕化失效
3		没有电痕化失效
4		没有电痕化失效
5		没有电痕化失效
测试结果	通过 PTI 500V	

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设备信息:

设备	型号	设备编号	校准日期	下次校准日期
漏电起痕测试仪	LDH	P-239	2016-4-28	2017-4-27



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3. 测试项目：表面电阻率

样品描述：透明硅胶片

测试方法：IEC 62631-3-2:2015

测试条件：

预处理条件：23 ± 2 °C，50 ± 5 %RH，96 h

测试条件：23 ± 2 °C，50 ± 5 %RH

测试电极直径：D₁=76 mm, D₂=88 mm

测试电压：500 Vdc

电化时间：1 min

测试结果：

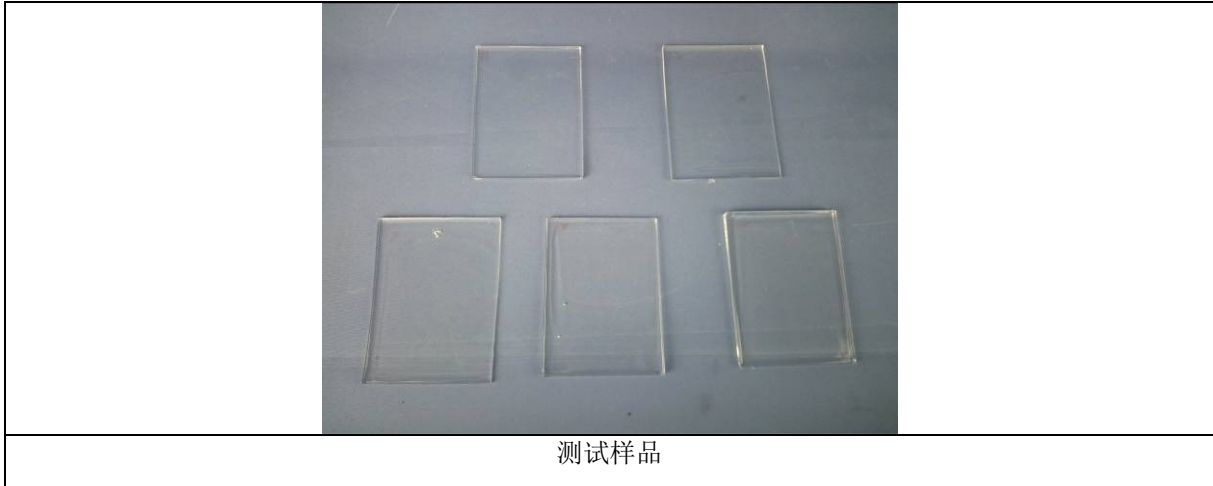
试样	表面电阻 R _s (Ω)	表面电阻率 ρ _s (Ω/sq)
1	1.41 × 10 ¹⁴	6.05 × 10 ¹⁵
2	1.01 × 10 ¹⁴	4.33 × 10 ¹⁵
3	1.20 × 10 ¹³	5.51 × 10 ¹⁴
4	3.10 × 10 ¹³	1.33 × 10 ¹⁵
5	5.57 × 10 ¹³	2.39 × 10 ¹⁵
中值	5.57 × 10 ¹³	2.39 × 10 ¹⁵



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测试照片:



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设备	型号	设备编号	校准日期	下次校准日期
高阻计	DSM-8104	P-410	2017-3-2	2018-3-1
电阻测试盒 (电极)	SME-8350	P-411	2016-7-12	2017-7-11

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4. 测试项目：体积电阻率

样品描述：透明硅胶片

测试方法：IEC 62631-3-1:2016

测试

预处理条件：23 ± 2 °C, 50 ± 5 %RH, 96 h

测试条件：23 ± 2 °C, 50 ± 5 %RH

测试电极直径：D₁=76 mm, D₂=88 mm

测试电压：500 Vdc

电化时间：1 min

测试结果：

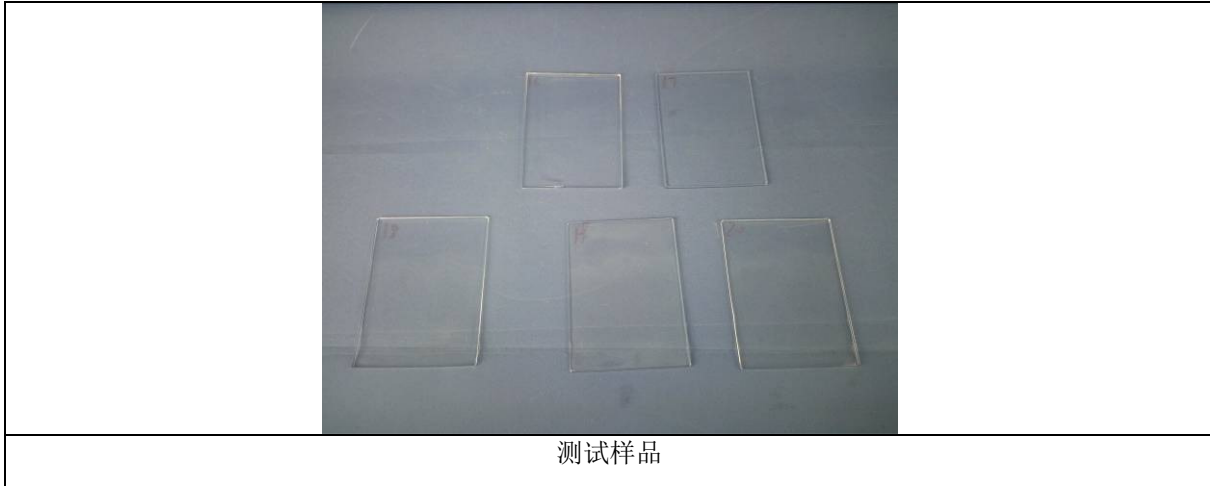
试样	试样厚度 (mm)	体积电阻 R _v (Ω)	体积电阻率 ρ _v (Ω·cm)
1	2.40	1.18×10 ¹²	2.60×10 ¹⁴
2	1.81	2.21×10 ¹²	6.34×10 ¹⁴
3	1.88	1.25×10 ¹²	3.51×10 ¹⁴
4	2.40	3.14×10 ¹²	6.91×10 ¹⁴
5	2.04	1.51×10 ¹²	3.91×10 ¹⁴
中值	--	1.25×10 ¹²	3.51×10 ¹⁴



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设备	型号	设备编号	校准日期	下次校准日期
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电阻测试盒（电极）	SME-8350	P-411	2016-7-12	2017-7-11



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5.测试项目：介电常数和介电损耗因子

样品描述：透明硅胶片

测试方法：IEC 60250:1969 和客户要求

测试条件：

预处理条件：48h/23±2°C/50±5%RH

测试方法：谐振法 (Q 表)

测试电极直径：Φ38mm

测试频率：1MHz

测试条件：23±2°C/50±5%RH

测试结果：

样品编号	测试结果		
	厚度 (mm)	介电常数	介电损耗因子
21	4.38	2.31	1.54×10^{-3}
22	3.95	1.79	1.17×10^{-3}
23	4.07	2.62	1.21×10^{-3}
24	4.23	1.84	1.81×10^{-3}
25	4.03	2.21	4.75×10^{-4}
平均值	--	2.15	1.24×10^{-3}



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测试照片:



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Q 表	WY2853D	P-230	2016-12-2	2017-12-1

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Testing Center-Client's Laboratory

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