

# TEST REPORT

REPORT No.: R2DG16070511422A

Date: August 12, 2016

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**Dongguan Yunze Garment Accessories Co., Ltd**

东莞市韵泽服装辅料有限公司

**Junli Industrial Park, Bajiaowo, Wanjiang, Dongguan, Guangdong**

广东省东莞市万江区拔蛟窝社区骏利工业园

Report on the submitted samples said to be:

委托检测的样品及申请者对样品的说明如下：

Sample Name : TPU ELASTIC TAPE  
样品名称 : TPU 弹力带  
Sample Description : Clothing shape material /elastic tape  
样品描述 : 服装定型材质/弹力带  
Style/Item No. : HD 6012S&5012S  
型号  
Product application scope : MEN & WOMEN  
产品适用范围 : 男&女  
Color : TRANSPARENT  
颜色 : 透明  
Country of Origin : China  
原产地 : 中国  
Product End Use : Clothing shape  
产品最终用途 : 服装定型  
Sample Receiving Date : July 6, 2016  
收样日期 : 2016年7月6日  
Testing Period : From July 6, 2016 to August 12, 2016  
测试周期 : 2016年7月6日至2016年8月12日  
Results : Please refer to next page(s).  
测试结果 : 参见后续页

Signed for and on behalf of BACL (BACL 授权签名)

Checked by  
审核:



Bing Yu  
Test technician  
技术员

Approved by  
核准:



Haidi Yin  
Physical Manager  
物理测试经理

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## Summary of Test Results(As the Requirement of Client):

测试结果概要(根据客户要求):

### TEST REQUEST

#### 测试要求

### CONCLUSION

#### 结论

A	Dimensional Stability to Washing 水洗尺寸稳定性	Pass 合格
B	Dimensional Stability to Ironing 熨烫尺寸稳定性	Data 数据
C	Tensile Strength 断裂强力	Data 数据
D	Percentage Elongation at Break 断裂伸长率	Data 数据
E	Discoloration from Ultraviolet (UV) and Heat Exposure of Light-Colored Surfaces 受热及紫外线辐射引起的浅色表面变色测试	Pass 合格
F	Discoloration from Ultraviolet (UV) or UV/Visible Radiation and Heat Exposure of Light-Colored Surfaces 浅颜色表面的紫外线(UV)或紫外/可见光辐射及热暴露变色	Pass 合格
G	Aging Test 老化测试	Pass 合格
H	Phenolic Yellowing 耐酚黄变色牢度	Pass 合格
I	Resistance of Elastics to Repeated Extension 松紧带往复拉伸测试	Pass 合格
J	Stretch and Recovery Test 回复性测试	Data 数据

Pass= Meet the Requirement of Client

合格 = 符合客户要求

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Results:  
测试结果:

Tested part(s):  
测试部位:

- (1) Transparent TPU elastic tape(6012S) 透明 TPU 弹力带(6012S)
- (2) Transparent TPU elastic tape(5012S) 透明 TPU 弹力带(5012S)

**A、 Dimensional Stability to Washing** (AATCC 135-2015, Test No.(1) II A(ii),Machine Wash at 27°C(80°F), Tumble dry delicate at 60±6°C (140±10°F))  
 水洗尺寸稳定性(AATCC 135-2015,试验编号(1) II A(ii),机洗温度 27°C(80°F), 60±6°C (140±10°F)烘干机烘干)

Client's Requirement  
客户要求

	(1)	
	After 3 Washes (%)	
	洗 3 次后 (%)	
Length 长度方向	-0.8	-5.0%~+5.0%
<b>Conclusion</b> 结论	<b>Pass</b> 合格	/

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**B、 Dimensional Stability to Ironing (BACL in House Method, Cool Ironing)**  
**熨烫尺寸稳定性(BACL 内部方法,冷熨烫)**

**Client's Requirement**  
**客户要求**

	(1)	
Method A: Dry ironing 方法 A: 干熨烫		
Length (%) 长度方向(%)	- 3.7	--
Method B: Spray ironing 方法 B: 喷雾熨烫		
Length (%) 长度方向(%)	- 2.9	--
<b>Conclusion</b> <b>结论</b>	--	/

Note:  
注:  
(-)Shrinkage (+) Extension  
(-)收缩 (+)延长

**C、 Tensile Strength (CRE Tensile Method, the Distance Between the Jaw separation 50mm, Speed 100 mm/min)**  
**断裂强力 (CRE 拉力法,夹距大约 50mm,拉伸速度 100 mm/min)**

**Client's Requirement**  
**客户要求**

	(1)	(2)	
	27.2 N/mm <sup>2</sup>	28.2 N/mm <sup>2</sup>	--
<b>Conclusion</b> <b>结论</b>	--	--	/

**D、 Percentage Elongation at Break (CRE Tensile Method, the Distance Between the Jaw separation 50mm, Speed 100 mm/min)**  
**断裂伸长率 (CRE 拉力法,夹距大约 50mm,拉伸速度 100 mm/min)**

**Client's Requirement**  
**客户要求**

	(1)	(2)	
	429.1%	486.9%	--
<b>Conclusion</b> <b>结论</b>	--	--	/

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**E、Discoloration from Ultraviolet (UV) and Heat Exposure of Light-Colored Surfaces**  
(ASTM D 1148-1995, 300W Ultra-Vitalux, Exposure Time:24 Hours, Temperature: 50°C)

受热及紫外线辐射引起的浅色表面变色测试(ASTM D 1148-1995, 300W 紫外线灯, 时间: 24 小时,温度:50°C)

**Client's Requirement**  
客户要求

	(1)	
Discoloration Degree(Grade) 变色等级(级)	4.0	≥ 4.0
<b>Conclusion</b> 结论	<b>Pass</b> 合格	/

**F、Discoloration from Ultraviolet (UV) or UV/Visible Radiation and Heat Exposure of Light-Colored Surfaces**  
(ASTM D 1148-2013, 300 W, Exposure Time:12 Hours, Temperature: 50°C)

在紫外线(UV)或紫外/可见光辐射及热暴露下浅颜色表面的变色(ASTM D 1148-2013, 300W, 时间: 12 小时,温度:50°C)

**Client's Requirement**  
客户要求

	(1)	
Discoloration Degree(Grade) 变色等级(级)	4.5	≥ 4.0
<b>Conclusion</b> 结论	<b>Pass</b> 合格	/

**G、Aging Test** (ASTM D 573-2004(2015),Modified, 70°C, 3 Days)  
老化测试(ASTM D 573-2004(2015),修正,70°C, 3 天)

**Client's Requirement**  
客户要求

	(1)	
Appearance Change 外观变化	No obvious change of surface 无明显变化	No obvious change of surface 无明显变化
Color Change(Grade) 变色(级)	4.5	≥4.0
Dimension Change 尺寸变化	2.0%	Dimension change ≤ 3% 尺寸变化≤ 3%
<b>Conclusion</b> 结论	<b>Pass</b> 合格	/

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**H. Phenolic Yellowing** (ISO 105 X18:2007, 50 °C for 16 Hours)  
 耐酚黄变色牢度(ISO 105 X18:2007, 50 °C,16 小时)

**Client's Requirement**  
 客户要求

	(1)	
Color Stain 沾色	4-5	≥4
<b>Conclusion</b> 结论	<b>Pass</b> 合格	/

Note  
 注:

1.Color Fastness Total Uncertainty: ±0.5 Grade  
 色牢度总不确定度:±0.5 级

2.Color Fastness Rating  
 色牢度评级

- Grade 5 Negligible/No Change or Staining  
5 级 可忽略或无颜色转移
- Grade 4 Color Change or Staining Equivalent to Gray Scale Step 4.  
4 级 变色/沾色程度与灰尺 4 级等同
- Grade 3 Color Change or Staining Equivalent to Gray Scale Step 3.  
3 级 变色/沾色程度与灰尺 3 级等同
- Grade 2 Color Change or Staining Equivalent to Gray Scale Step 2.  
2 级 变色/沾色程度与灰尺 2 级等同
- Grade 1 Color Change or Staining Equivalent to Gray Scale Step 1.  
1 级 变色/沾色程度与灰尺 1 级等同

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**I、 Resistance of Elastics to Repeated Extension (SATRA TM103:1992,Modified)**  
松紧带往复拉伸测试(SATRA TM103:1992,修正)

**Client's Requirement**  
客户要求

(1)

Sample Length:20mm, Displacement Distance:60mm  
样品长度: 20mm, 位移距离: 60mm

After 10000 cycles  
10000 次后

No damage  
无破损

No damage after  
10000 cycles  
往复拉伸 10000 次后,  
无破损

**Conclusion**  
结论

**Pass**  
合格

/

(2)

Sample Length:20mm, Displacement Distance:40mm  
样品长度: 20mm, 位移距离: 40mm

After 10000 cycles  
10000 次后

No damage  
无破损

No damage after  
10000 cycles  
往复拉伸 10000 次后,  
无破损

**Conclusion**  
结论

**Pass**  
合格

/

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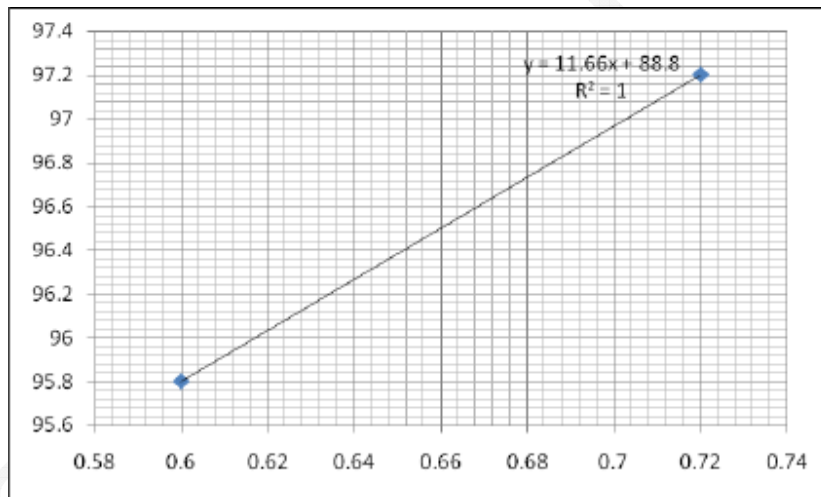
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**J、Stretch and Recovery Test (ASTM D4964-1996(2012)<sup>e1</sup>)**  
 回复性测试(ASTM D4964-1996(2012)<sup>e1</sup>)

**Client's Requirement**  
客户要求

	(1)	(2)	
Pre elongation: 70%			
预伸长: 70%	97.2%	95.8%	--
<b>Conclusion</b>			
结论	--	--	/



Cross -sectional area and recovery linear relation  
 横截面面积与回复性线性关系

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Photograph of Sample  
样品照片



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