

## Technical Data

## 产品说明

Versaflex™ CL E90 是一种具有极高透明度、高性能、可高温加热的材料，是医疗和食品包装的理想材料。Versaflex™ CL E90 也没有使用增塑剂。

新产品。还未建立商业规范。

- 柔韧
- 采用不使用增塑剂的特制配方
- 透明度高

## 总览

材料状态	• 已商用：当前有效
资料 <sup>1</sup>	• <a href="#">Technical Datasheet</a>
搜索 UL 黄卡	• <a href="#">普立万公司</a> • <a href="#">Versaflex™</a>
供货地区	• 北美洲 • 非洲和中东 • 拉丁美洲 • 亚太地区
特性	• 良好的柔韧性 • 清晰度，高
用途	• 薄膜 • 个人护理 • 瓶子 • 医疗/护理用品
机构评级	• FDA 21 CFR 177.1210 <sup>2</sup> • ISO 10993 Part 4 • ISO 10993 Part 5 • USP 第 VI 类 <sup>3</sup>
RoHS 合规性	• RoHS 合规
外观	• 清晰/透明
形式	• 粒子
加工方法	• 挤出

物理性能	额定值	单位制	测试方法
密度 / 比重	0.898	g/cm <sup>3</sup>	ASTM D792
<b>薄膜</b>	<b>额定值</b>	<b>单位制</b>	<b>测试方法</b>
透氧率			ASTM D3985
21°C, 120 μm	280	cm <sup>3</sup> -mm/m <sup>2</sup> /atm/24 hr	
21°C, 1800 μm	260	cm <sup>3</sup> -mm/m <sup>2</sup> /atm/24 hr	
氧气传输速率			ASTM D3985
21°C, 120 μm	2300	cm <sup>3</sup> /m <sup>2</sup> /24 hr	
21°C, 1800 μm	140	cm <sup>3</sup> /m <sup>2</sup> /24 hr	
<b>弹性体</b>	<b>额定值</b>	<b>单位制</b>	<b>测试方法</b>
拉伸应力 <sup>5,6</sup>			ASTM D412
100%应变, 23°C	6.89	MPa	
300%应变, 23°C	8.51	MPa	
抗张强度 <sup>5,6</sup> (断裂, 23°C)	12.6	MPa	ASTM D412
伸长率 <sup>5,6</sup> (断裂, 23°C)	570	%	ASTM D412
压缩永久变形			ASTM D395B
22°C, 22 hr	27	%	
70°C, 22 hr	67	%	
100°C, 22 hr	73	%	
<b>硬度</b>	<b>额定值</b>	<b>单位制</b>	<b>测试方法</b>
肖氏硬度 (邵氏 A, 10 秒)	90		ASTM D2240



充模分析	额定值 单位制	测试方法
表观粘度		ASTM D3835
200°C, 1340 sec <sup>-1</sup>	162 Pa·s	
200°C, 11200 sec <sup>-1</sup>	34.0 Pa·s	
挤出	额定值 单位制	
熔体温度	182 到 204 °C	
口模温度	171 到 199 °C	

**挤压说明**

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Versaflex™ CL E90. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Liquid color can be used, but mineral oil based carriers may have a significant effect on the final hardness value. Concentrates based on PVC should not be used. A high color match consistency can be obtained by using precolored compounds available from GLS. The final determination of color concentrate suitability should be determined by customer trials.

Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP).

Drying is not Required.

Rear Zone = 330-370F  
Center Zone = 350-400F  
Front Zone = 360-420F  
Screw Speed = 100-500 RPM

**备注**

<sup>1</sup> 通过这些链接您能够访问供应商资料。我们尽量保证及时更新资料；不过您可以从供应商处了解最新资料。

<sup>2</sup> Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.

<sup>3</sup> Please contact PolyOne GLS Thermoplastic Elastomers for a complete copy of the GLS Healthcare Policy.

1. The Customer must notify GLS of any FDA Class I and/or European Union Class I medical devices for each specific product and application.

2. The Customer shall not knowingly manufacture, use, sell or otherwise supply, directly or indirectly products or compounds made from GLS products in any of the following without prior written approval by GLS for each specific product or application:

a. Cosmetics

b. Drugs and other Pharmaceuticals

c. Temporary or permanent implantation in the human body, regardless of the intended duration of implantation

d. Class II and Class III Medical Devices as defined in 21 CFR 860.3 ("Medical Devices")

e. Class IIa, IIb and III as defined in Directive 93/42/EEC

<sup>4</sup> 一般属性：这些不能被视为规格。

<sup>5</sup> C 模具

<sup>6</sup> 2 小时



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购买地点

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供应商

普立万公司

Cleveland, OH USA

电话: 1-844-4AVIENT

Web: <https://www.avient.com>

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分销商

Avient Distribution (formerly PolyOne Distribution)

*Avient Distribution is a global distribution company. Contact Avient Distribution for availability of individual products by country.*

电话: +1-888-502-0951 (USA); +86-21-6028-4805 (China)

Web: <https://www.avientdistribution.com/>

供货地区: Global

