

# ECOZEN® YF 301

Bio-based Copolyester

SK Chemicals

## Technical Data

### 产品说明

ECOZEN YF 301 is eco-friendly bio copolyester which is created using natural materials based on the extract from plant or vegetable materials therefore it does not include environmental hormone bisphenol A (BPA) is a controversial never-ending human hazards. Also it is one of the excellent resins which have chemical resistance and food-stain resistance among the transparent resin used in food contact applications and its low oxygen permeability is useful for food storage container such as the airtight container.

ECOZEN YF 301 has various food contact related use of certification such as FDA (Food Contact Notification (FCN) No. 1075), NSF (the United States), EFSA (EU), JHOSPA (Japan), NHFPC (China) and KFDA (South Korea) and it has also the certification of bioplastics such as BETA certification.

ECOZEN YF 301 is obtained the GOLD Level for Cradle to Cradle (C2C) certification (the United States) and certified by the external environment-friendly products. SK Chemicals Company has obtained the GOLD Level as the world's first and only chemical resin supplier.

### Key Attributes

- BPA / Phthalate free
- Excellent Heat Resistance
- Excellent Chemical & Stain Resistance
- Excellent Impact Strength
- High Flexural Strength
- High Transparency and Gloss
- Low Processing Temperature
- Less Residual Stress

### Applications / Uses

- Food Container
- Airtight Container
- Baby Food Container
- Food Bowl
- Mixer & Blender
- Sports Bottle, Water Bottle, Juice Bottle etc.

### Approvals

FDA : Food and Drug Administration

NSF : National Sanitation Foundation

EFSA : European Food Safety Authority

JHOSPA : Japan Hygienic Olefin and Styrene Plastics Association

NHFPC : National Health and Family Planning Commission

BEAT Analytic Inc. : ISO/IEC 17025:2005 Accredited Radiocarbon Dating Laboratory

### 总体

特性	<ul style="list-style-type: none"> <li>• Good Heat Resistance</li> <li>• 高光</li> <li>• 抗污性</li> </ul>	<ul style="list-style-type: none"> <li>• 抗撞击性，良好</li> <li>• 可更新资源</li> <li>• 良好的强度</li> </ul>	<ul style="list-style-type: none"> <li>• 耐化学性良好</li> <li>• 无 BPA</li> </ul>
用途	<ul style="list-style-type: none"> <li>• 非特定食品应用</li> <li>• 果汁瓶</li> </ul>	<ul style="list-style-type: none"> <li>• 家电部件</li> <li>• 瓶子</li> </ul>	<ul style="list-style-type: none"> <li>• 食品容器</li> </ul>
机构评级	<ul style="list-style-type: none"> <li>• Cradle to Cradle (C2C) Gold</li> <li>• EU EFSA</li> <li>• FDA FCN 1075</li> </ul>	<ul style="list-style-type: none"> <li>• JHOSPA 未评级</li> <li>• KFDA Unspecified</li> <li>• NHFPC Unspecified</li> </ul>	<ul style="list-style-type: none"> <li>• NSF 未评级</li> </ul>
加工方法	<ul style="list-style-type: none"> <li>• 注射成型</li> </ul>		

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物理性能	额定值 单位制	测试方法
密度 / 比重	1.27 g/cm <sup>3</sup>	ASTM D792
收缩率 - 流动	0.20 到 0.50 %	ASTM D955
机械性能	额定值 单位制	测试方法
抗张强度 <sup>4</sup>		ASTM D638
屈服	51.0 MPa	
断裂	44.0 MPa	
伸长率 <sup>4</sup>		ASTM D638
屈服	6.8 %	
断裂	150 %	
弯曲模量 <sup>5</sup>	2180 MPa	ASTM D790
弯曲强度 <sup>5</sup>	87.0 MPa	ASTM D790
冲击性能	额定值 单位制	测试方法
悬壁梁缺口冲击强度 (23°C)	无断裂	ASTM D256
硬度	额定值 单位制	测试方法
洛氏硬度 (R 级)	119	ASTM D785
热性能	额定值 单位制	测试方法
载荷下热变形温度 (0.45 MPa, 未退火)	100 °C	ASTM D648
可燃性	额定值 单位制	测试方法
UL 阻燃等级 (3.2 mm)	V-2	UL 94
光学性能	额定值 单位制	测试方法
透射率	88.0 %	ASTM D1003
雾度	< 1.0 %	ASTM D1003