

Technical Data

产品说明

Zytel® 77G33L BK031 is a 33% glass fiber reinforced, black polyamide 612 resin for injection molding.

总体

材料状态	• 已商用：当前有效		
资料 ¹	• Processing - Injection Molding (English) • Processing - Injection Molding of Glass-reinforced Zytel (English) • Technical Datasheet • Typical Processing for DuPont Engineering Polymers (English)		
UL 黄卡 ²	• E41938-234360		
搜索 UL 黄卡	• DuPont Performance Polymers • Zytel®		
供货地区	• 北美洲 • 非洲和中东 • 拉丁美洲	• 南美洲 • 欧洲 • 亚太地区	• 中美洲
填料/增强材料	• 玻璃纤维增强材料, 33% 填料按重量		
添加剂	• 润滑剂		
性能特点	• 超声波可焊接 • 尺寸稳定性良好	• 经润滑 • 吸潮性差	
用途	• 电气/电子应用领域 • 工业领域：	• 家电部件 • 汽车领域的应用：	
RoHS 合规性	• 联系制造商		
外观	• 黑色		
形式	• 颗粒料		
加工方法	• 注射成型		
部件标识代码 (ISO 11469)	• >PA612-GF33<		
树脂ID (ISO 1043)	• PA612-GF33		

物理性能	干燥	调节后的	单位制	测试方法
比重				
--	1.32	--	(g/cm³)	ASTM D792
--	1.32	--	g/cm³	ISO 1183
收缩率				
流动: 0.0630 in (1.60 mm)	0.0010 (0.10)	--	in/in (%)	Internal Method
流动: 0.126 in (3.20 mm)	0.0020 (0.20)	--	in/in (%)	Internal Method
流动: 0.252 in (6.40 mm)	0.0040 (0.40)	--	in/in (%)	Internal Method
横向流动: 0.0630 in (1.60 mm)	0.0090 (0.90)	--	in/in (%)	Internal Method
横向流动: 0.126 in (3.20 mm)	0.010 (1.0)	--	in/in (%)	Internal Method
横向流动: 0.252 in (6.40 mm)	0.011 (1.1)	--	in/in (%)	Internal Method
横向流量: 0.0787 in (2.00 mm)	0.90	--	%	ISO 294-4
流量: 0.0787 in (2.00 mm)	0.30	--	%	ISO 294-4
机械性能	干燥	调节后的	单位制	测试方法
拉伸模量 (73°F (23°C))	1.38E+6 (9500)	1.15E+6 (7900)	psi (MPa)	ISO 527-2

机械性能	干燥	调节后的	单位制	测试方法
拉伸应力				
断裂, 73°F (23°C)	24400 (168)	20300 (140)	psi (MPa)	ISO 527-2
73°F (23°C)	23900 (165)	--	psi (MPa)	ASTM D638
伸长率				
断裂, 73°F (23°C)	3.0	--	%	ASTM D638
断裂, 73°F (23°C)	3.0	3.2	%	ISO 527-2
弯曲模量 (73°F (23°C))	1.19E+6 (8200)	--	psi (MPa)	ASTM D790 ISO 178
弯曲强度 (73°F (23°C))	35500 (245)	--	psi (MPa)	ASTM D790
冲击性能	干燥	调节后的	单位制	测试方法
简支梁缺口冲击强度				ISO 179/1eA
-40°F (-40°C)	5.7 (12)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	6.2 (13)	--	ft·lb/in ² (kJ/m ²)	
悬壁梁缺口冲击强度				
73°F (23°C)	2.0 (110)	--	ft·lb/in (J/m)	ASTM D256
-40°F (-40°C)	5.2 (11)	--	ft·lb/in ² (kJ/m ²)	ISO 180/1A
73°F (23°C)	6.2 (13)	--	ft·lb/in ² (kJ/m ²)	ISO 180/1A
无缺口悬臂梁冲击 (73°F (23°C))	20 (1100)	--	ft·lb/in (J/m)	ASTM D4812
热性能	干燥	调节后的	单位制	测试方法
热变形温度				
66 psi (0.45 MPa), 未退火	401 (205)	--	°F (°C)	ASTM D648
264 psi (1.8 MPa), 未退火	374 (190)	--	°F (°C)	ASTM D648
264 psi (1.8 MPa), 未退火	392 (200)	--	°F (°C)	ISO 75-2/A
熔融温度				
-- ⁴	424 (218)	--	°F (°C)	ISO 11357-3
--	419 (215)	--	°F (°C)	ASTM D3418
线形膨胀系数				ASTM E831 ISO 11359-2
流动: -40 到 73°F (-40 到 23°C)	0.000014 (0.000026)	--	in/in/°F (cm/cm/°C)	
流动: 73 到 131°F (23 到 55°C)	9.4E-6 (0.000017)	--	in/in/°F (cm/cm/°C)	
流动: 131 到 320°F (55 到 160°C)	8.9E-6 (0.000016)	--	in/in/°F (cm/cm/°C)	
横向: -40 到 73°F (-40 到 23°C)	0.000046 (0.000083)	--	in/in/°F (cm/cm/°C)	
横向: 73 到 131°F (23 到 55°C)	0.000063 (0.00011)	--	in/in/°F (cm/cm/°C)	
横向: 131 到 320°F (55 到 160°C)	0.000088 (0.00016)	--	in/in/°F (cm/cm/°C)	
RTI Elec				UL 746
0.0280 in (0.710 mm)	221 (105)	--	°F (°C)	
0.0591 in (1.50 mm)	248 (120)	--	°F (°C)	

热性能	干燥	调节后的	单位制	测试方法
RTI Str (0.0591 in (1.50 mm))	248 (120)	--	°F (°C)	UL 746
电气性能	干燥	调节后的	单位制	测试方法
相比耐漏电起痕指数(CTI)	600	--	V	UL 746
可燃性	干燥	调节后的	单位制	测试方法
UL 阻燃等级 (0.0280 in (0.710 mm))	HB	--		UL 94 IEC 60695-11-10, -20
灼热丝易燃指数				IEC 60695-2-12
0.0280 in (0.710 mm)	1250 (675)	--	°F (°C)	
0.0591 in (1.50 mm)	1250 (675)	--	°F (°C)	
0.118 in (3.00 mm)	1290 (700)	--	°F (°C)	
热灯丝点火温度				IEC 60695-2-13
0.0280 in (0.710 mm)	1290 (700)	--	°F (°C)	
0.0591 in (1.50 mm)	1290 (700)	--	°F (°C)	
0.118 in (3.00 mm)	1340 (725)	--	°F (°C)	

注射	干燥 (英制)	干燥 (公制)
干燥温度	176 °F	80.0 °C
干燥时间	2.0 到 4.0 hr	2.0 到 4.0 hr
建议的最大水分含量	< 0.15 %	< 0.15 %
加工 (熔体) 温度	536 到 572 °F	280 到 300 °C
Melt Temperature, Optimum	554 °F	290 °C
模具温度	158 到 248 °F	70.0 到 120 °C
Mold Temperature, Optimum	212 °F	100 °C
Drying Recommended	Yes, if moisture content of resin exceeds recommended level	Yes, if moisture content of resin exceeds recommended level

备注

¹ 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。

² UL 黄卡含有 UL 验证的易燃性和电气特性。UL IDES 持续努力在 Prospector 中将黄卡链接至单个塑料材料，然而此列表可能未包括所有相应链接。重要的是，我们对 Prospector 中找到的这些黄卡和塑料材料之间的关联进行验证。如需完整的黄卡列表，请访问 UL 黄卡搜索。

³ 一般属性：这些不能被视为规格。

⁴ 10°C/min

购买地点

供应商

Zytel® 77G33L BK031

DuPont Performance Polymers

Wilmington, DE USA
电话: 302-999-4592
Web: <http://plastics.dupont.com/>

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分销商

Zytel® 77G33L
BK031

Biesterfeld Plastic GmbH

Biesterfeld Plastic GmbH is a Pan European distribution company. Contact Biesterfeld Plastic GmbH for availability of individual products by country.

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Web: <http://www.biesterfeld-plastic.com/>

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– Birgit Elvardt Bader, Production Manager, Micotron

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