

Zytel® 101L NC010

NYLON RESIN

DuPont Performance Polymers



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Technical Data

产品说明

Zytel® 101L NC010 is a lubricated polyamide 66 resin for injection molding.

总体

材料状态	<ul style="list-style-type: none">已商用：当前有效
资料 ¹	<ul style="list-style-type: none">Processing - Injection Molding (English)Technical DatasheetTypical Processing for DuPont Engineering Polymers (English)
UL 黄卡 ²	<ul style="list-style-type: none">E41938-100726136E41938-234369
搜索 UL 黄卡	<ul style="list-style-type: none">DuPont Performance PolymersZytel®
供货地区	<ul style="list-style-type: none">北美洲非洲和中东拉丁美洲南美洲欧洲亚太地区中美洲
添加剂	<ul style="list-style-type: none">润滑剂
性能特点	<ul style="list-style-type: none">超声波可焊接低分子量经润滑可加工性，良好良好的成型性能良好的电气性能流动性高耐化学性良好耐磨损性良好耐疲劳性能耐油耐油性耐油脂性能生产阶段，快脱模性能良好
用途	<ul style="list-style-type: none">电气/电子应用领域家电部件连接器汽车领域的应用：
RoHS 合规性	<ul style="list-style-type: none">联系制造商
外观	<ul style="list-style-type: none">自然色
形式	<ul style="list-style-type: none">颗粒料
加工方法	<ul style="list-style-type: none">注射成型
多点数据	<ul style="list-style-type: none">Isothermal Stress vs. Strain (ISO 11403-1)Shear Modulus vs. Temperature (ISO 11403-1)
部件标识代码 (ISO 11469)	<ul style="list-style-type: none">>PA66<
树脂ID (ISO 1043)	<ul style="list-style-type: none">PA66

物理性能	干燥	调节后的	单位制	测试方法
密度	1.14	--	g/cm ³	ISO 1183
收缩率				
流动: 3.20 mm	1.5	--	%	Internal Method
横向流量: 2.00 mm	1.4	--	%	ISO 294-4
流量: 2.00 mm	1.4	--	%	ISO 294-4
吸水率				
23°C, 24 hr	1.2	--	%	ASTM D570
饱和, 23°C	8.5	--	%	ASTM D570 ISO 62
平衡, 23°C, 50% RH	2.6	--	%	ISO 62

机械性能	干燥	调节后的	单位制	测试方法
拉伸模量				ISO 527-2
-40°C	3560	4490	MPa	
-20°C	3420	3780	MPa	
0°C	3390	2860	MPa	
23°C	3100	1400	MPa	
40°C	--	945	MPa	
60°C	1150	686	MPa	
90°C	559	509	MPa	
120°C	460	373	MPa	
150°C	385	290	MPa	
抗张强度				
屈服, -40°C	114	110	MPa	ASTM D638
屈服, 23°C	83.0	58.0	MPa	ASTM D638
屈服, 77°C	45.0	34.0	MPa	ASTM D638
屈服, 121°C	33.0	28.0	MPa	ASTM D638
屈服, 23°C	82.0	55.0	MPa	ISO 527-2
-40°C	114	110	MPa	ASTM D638
23°C	83.0	77.0	MPa	ASTM D638
77°C	62.0	41.0	MPa	ASTM D638
121°C	43.0	38.0	MPa	ASTM D638
伸长率				
屈服, -40°C	4.0	--	%	ASTM D638
屈服, 23°C	5.0	25	%	ASTM D638
屈服, 77°C	30	30	%	ASTM D638
屈服, 121°C	45	40	%	ASTM D638
屈服, 23°C	4.5	25	%	ISO 527-2
断裂, -40°C	15	20	%	ASTM D638
断裂, 23°C	60	> 300	%	ASTM D638
断裂, 77°C	> 300	> 300	%	ASTM D638
断裂, 121°C	> 300	> 300	%	ASTM D638
断裂, 23°C	45	--	%	ISO 527-2/50
断张率 (23°C)	25	> 100	%	ISO 527-2
拉伸蠕变模量				ISO 899-1
1 hr	--	1400	MPa	
1000 hr	--	820	MPa	
弯曲模量				
-40°C	3240	3450	MPa	ASTM D790
23°C	2830	1210	MPa	ASTM D790
77°C	690	565	MPa	ASTM D790
121°C	538	414	MPa	ASTM D790
23°C	2800	1200	MPa	ISO 178
剪切强度 (23°C)	66.0	--	MPa	ASTM D732
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
-30°C	4.5	3.0	kJ/m ²	
23°C	5.5	15	kJ/m ²	
简支梁缺口冲击强度				ISO 179/1eU
-30°C	400 kJ/m ²	无断裂		
23°C	无断裂	无断裂		

冲击性能	干燥	调节后的	单位制	测试方法
悬壁梁缺口冲击强度				
-40°C	32	27	J/m	ASTM D256
23°C	53	110	J/m	ASTM D256
-40°C	5.5	--	kJ/m ²	ISO 180/1A
-30°C	5.5	3.0	kJ/m ²	ISO 180/1A
23°C	5.5	12	kJ/m ²	ISO 180/1A
无缺口伊佐德冲击强度				ISO 180/1U
-30°C	300	--	kJ/m ²	
23°C	无断裂	无断裂		
拉伸冲击强度				ASTM D1822
23°C ⁴	504	1470	kJ/m ²	
23°C ⁵	157	232	kJ/m ²	
硬度	干燥	调节后的	单位制	测试方法
洛氏硬度				ASTM D785
M 计秤	79	59		ISO 2039-2
R 计秤	121	108		
热性能	干燥	调节后的	单位制	测试方法
热变形温度				
0.45 MPa, 未退火	210	--	°C	ASTM D648
0.45 MPa, 未退火	200	--	°C	ISO 75-2/B
1.8 MPa, 未退火	65.0	--	°C	ASTM D648
1.8 MPa, 未退火	70.0	--	°C	ISO 75-2/A
脆化温度	-80.0	-65.0	°C	ASTM D746
玻璃转化温度	60.0	--	°C	ISO 11357-2
熔融温度 ⁶	262	--	°C	ISO 11357-3
线形膨胀系数				ISO 11359-2
流动: 23 到 55°C	0.00010	--	cm/cm/°C	
横向: 23 到 55°C	0.00011	--	cm/cm/°C	
RTI Elec (0.710 mm)	130	--	°C	UL 746
RTI Imp (0.710 mm)	75.0	--	°C	UL 746
RTI Str (0.710 mm)	85.0	--	°C	UL 746
电气性能	干燥	调节后的	单位制	测试方法
表面电阻率	1.0E+12	1.0E+12	ohm	IEC 60093
体积电阻率	1.0E+14	1.0E+12	ohm-cm	IEC 60093
耐电强度 (23°C, 1.00 mm)	32	--	kV/mm	IEC 60243-1
介电常数				
23°C, 100 Hz	4.00	8.00		ASTM D150
23°C, 1 kHz	3.90	7.00		ASTM D150
23°C, 1 MHz	3.60	4.60		ASTM D150
23°C, 100 Hz	3.80	10.9		IEC 60250
23°C, 1 MHz	3.50	4.00		IEC 60250
耗散因数				
23°C, 100 Hz	0.010	0.20		ASTM D150
23°C, 1 kHz	0.020	0.20		ASTM D150
23°C, 1 MHz	0.020	0.10		ASTM D150
23°C, 100 Hz	0.0080	0.21		IEC 60250
23°C, 1 MHz	0.018	0.075		IEC 60250
相比耐漏电起痕指数(CTI)	> 600	--	V	UL 746
漏电起痕指数 (3.00 mm)	600	--	V	IEC 60112
可燃性	干燥	调节后的	单位制	测试方法
UL 阻燃等级 (0.710 mm)	V-2	--		UL 94 IEC 60695-11-10, -20

可燃性	干燥	调节后的	单位制	测试方法
灼热丝易燃指数				IEC 60695-2-12
0.710 mm	960	--	°C	
1.50 mm	960	--	°C	
3.00 mm	960	--	°C	
热灯丝点火温度				IEC 60695-2-13
0.710 mm	725	--	°C	
1.50 mm	750	--	°C	
3.00 mm	800	--	°C	
极限氧指数				
--	28	31	%	ASTM D2863
--	28	--	%	ISO 4589-2

注射	干燥 单位制
干燥温度	80.0 °C
干燥时间 - 热风干燥机	2.0 到 4.0 hr
建议的最大水分含量	< 0.20 %
加工 (熔体) 温度	280 到 300 °C
Melt Temperature, Optimum - Injection Molding	290 °C
模具温度	50.0 到 90.0 °C
Mold Temperature, Optimum - Injection Molding	70 °C
Drying Recommended	Yes, if moisture content of resin exceeds recommended level

挤出	干燥 单位制
干燥温度	80.0 °C
干燥时间	4.0 到 6.0 hr
建议的最大水分含量	< 0.060 %
熔体温度	275 到 290 °C
Extrusion Melt Temperature, Optimum	285 °C

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 Type L

⁵ Type S

⁶ 10°C/min

购买地点

供应商

Zytel® 101L NC010

DuPont Performance Polymers

Wilmington, DE USA

电话: 302-999-4592

Web: <http://plastics.dupont.com/>

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分销商

Zytel® 101L
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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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PolyOne Distribution

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可用性: Global

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可用性: Global



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