



Zytel® 70G30HSL BK039B

NYLON RESIN

Zytel® 尼龙树脂的共性包括良好的机械和物理性能，例如高机械强度，刚性和韧性之间良好的平衡，良好的高温性能、电性能和阻燃性能，优异的耐磨损和耐化学品性能。另外，Zytel®

尼龙树脂有不同改性和增强规格为特殊加工和终端客户提供定制的性能。Zytel®

尼龙树脂，包括大多数阻燃规格，提供了染色可能性。

Zytel® 尼龙树脂良好的热稳定性通常使正确处理的生产废弃物回收成为可能。如果不能回收使用，杜邦建议的优先选择是在合适的装置中焚烧进行能量回收（基体树脂-31kJ/g）。废弃处理需遵守当地法规。

Zytel® 尼龙树脂通常应用于要求严苛的汽车、家具、家用电器、运动器材和建筑行业。

Zytel® 70G30HSL BK039B是一种30% 玻纤增强, 热稳定, 尼龙66

总说明

树脂鉴别	PA66-GF30	ISO 1043
制品标识码	>PA66-GF30<	ISO 11469
ISO名称	ISO 16396-PA66,GF30,M1CGHRT2,S14-100	

流变性能

	dry/cond.		
粘数	148/*	cm ³ /g	ISO 307, 1157, 1628
模塑收缩率, 平行	0.3/-	%	ISO 294-4, 2577
模塑收缩率, 垂直	1.1/-	%	ISO 294-4, 2577

机械性能

	dry/cond.		
拉伸模量	10000/7000	MPa	ISO 527-1/-2
断裂应力	190/120	MPa	ISO 527-1/-2
断裂伸长率	3/5	%	ISO 527-1/-2
弯曲模量	9000/-	MPa	ISO 178
拉伸蠕变模量, 1h	*/6800	MPa	ISO 899-1
拉伸蠕变模量, 1000h	*/5100	MPa	ISO 899-1
简支梁无缺口冲击强度, +23°C	70/80	kJ/m ²	ISO 179/1eU
简支梁无缺口冲击强度, -30°C	70/70	kJ/m ²	ISO 179/1eU
简支梁缺口冲击强度, +23°C	10/12	kJ/m ²	ISO 179/1eA
简支梁缺口冲击强度, -30°C	9/9	kJ/m ²	ISO 179/1eA
冲孔最大力, +23°C	970/-	N	ISO 6603-2
冲孔功, +23°C	4.5/-	J	ISO 6603-2
悬臂梁缺口冲击强度, 23°C	10/12	kJ/m ²	ISO 180/1A
悬臂梁缺口冲击强度, -40°C	7/-	kJ/m ²	ISO 180/1A
Poisson's ratio	0.34/0.35	-	



Zytel® 70G30HSL BK039B

NYLON RESIN

热性能

	dry/cond.		
熔融温度, 10°C/min	263/*	°C	ISO 11357-1/-3
玻璃化转变温度, 10°C/min	75/20	°C	ISO 11357-1/-2
热变形温度, 1.80 MPa	250/*	°C	ISO 75-1/-2
热变形温度, 0.45 MPa	258/*	°C	ISO 75-1/-2
维卡软化温度, 50°C/h 50N	250/*	°C	ISO 306
固态导热系数	0.36	W/(m K)	
熔体	0.21	W/(m K)	
有效导热率 ^a	7.0E-8	m ² /s	
熔体的比热	2290	J/(kg K)	
相对温度指数, 电气性能, 0.75mm	140	°C	UL 746B
相对温度指数, 电气性能, 1.5mm	140	°C	UL 746B
相对温度指数, 电气性能, 3mm	140	°C	UL 746B
相对温度指数, 冲击, 0.75mm	125	°C	UL 746B
相对温度指数, 冲击, 1.5mm	125	°C	UL 746B
相对温度指数, 冲击, 3mm	125	°C	UL 746B
相对温度指数, 强度, 0.75mm	140	°C	UL 746B
相对温度指数, 强度, 1.5mm	140/*	°C	UL 746B
相对温度指数, 强度, 3mm	140	°C	UL 746B

燃烧性能

	dry/cond.		
1.5mm名义厚度时的燃烧性	HB/*	class	IEC 60695-11-10
测试用试样的厚度	1.5/* ^[1]	mm	IEC 60695-11-10
UL注册	yes/*	-	UL 94
厚度为h时的燃烧性	HB/*	class	IEC 60695-11-10
测试用试样的厚度	0.4/*	mm	IEC 60695-11-10
燃烧性 - 氧指数	24/*	%	ISO 4589-1/-2
灼热丝燃烧指数, 1mm	700/-	°C	IEC 60695-2-12
灼热丝燃烧指数, 2mm	750/-	°C	IEC 60695-2-12
灼热丝燃烧指数, 3mm	800/-	°C	IEC 60695-2-12
灼热丝起燃温度, 1mm	725/-	°C	IEC 60695-2-13
灼热丝起燃温度, 2mm	725/-	°C	IEC 60695-2-13
灼热丝起燃温度, 3mm	775/-	°C	IEC 60695-2-13
灼热丝温度, 无火, 1mm	700/-	°C	IEC 60335-1
灼热丝温度, 无火, 2mm	700/-	°C	IEC 60335-1
灼热丝温度, 无火, 3mm	750/-	°C	IEC 60335-1
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
燃烧速率, 厚度: 1毫米	22	mm/min	ISO 3795 (FMVSS 302)

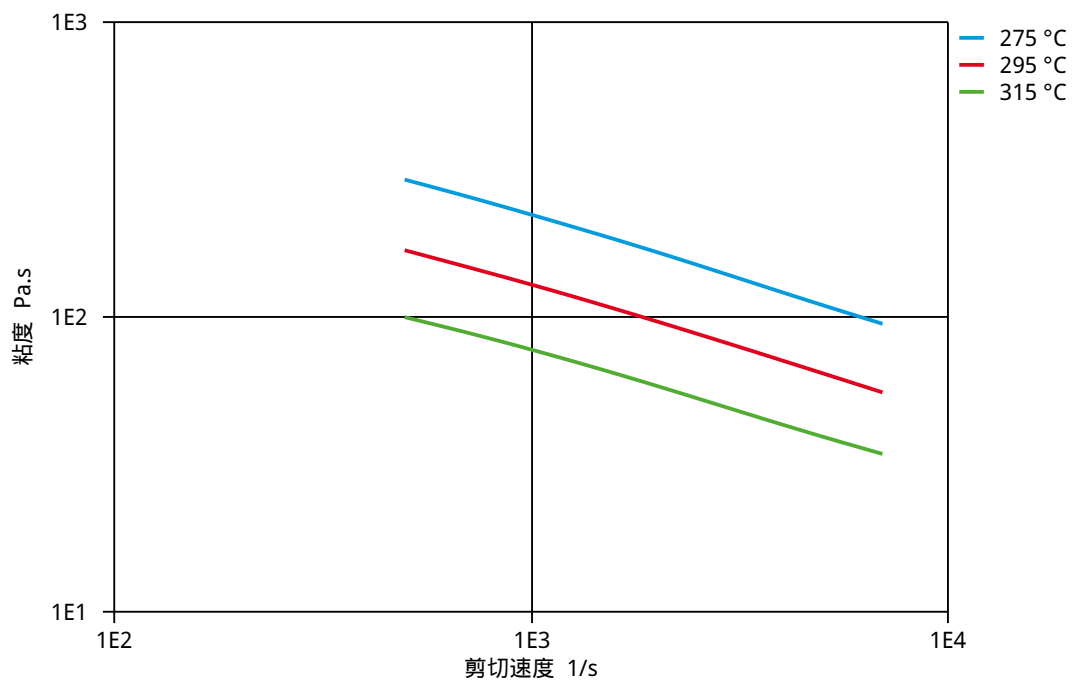
[1]: and also 0.75mm



Zytel® 70G30HSL BK039B

NYLON RESIN

粘度 - 剪切速度

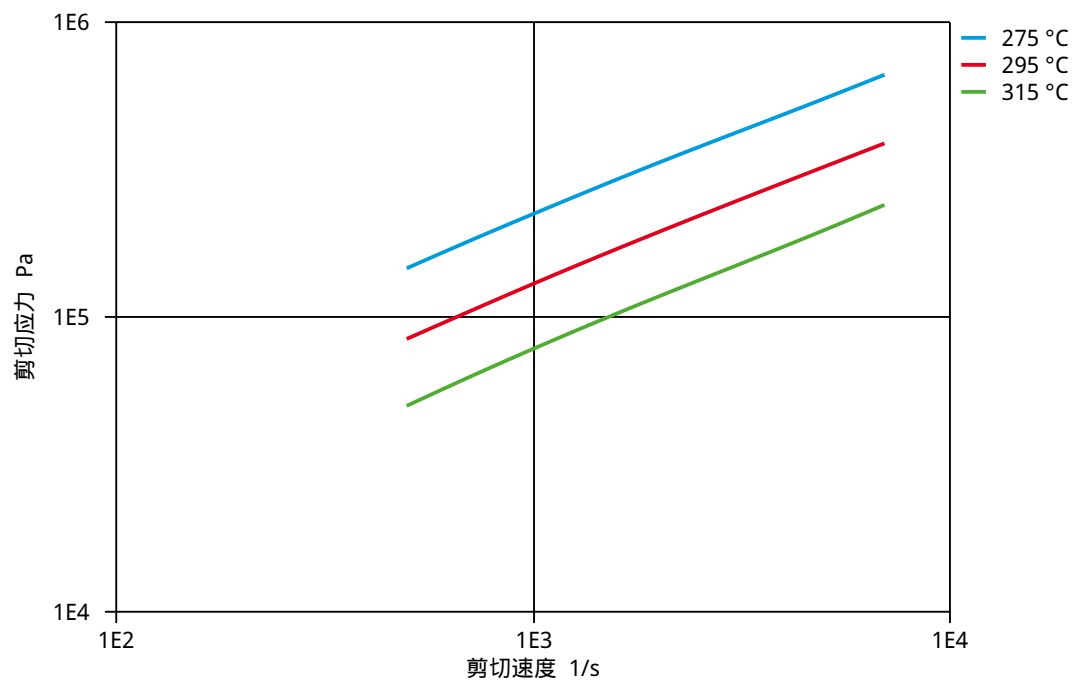




Zytel® 70G30HSL BK039B

NYLON RESIN

剪切应力 - 剪切速度

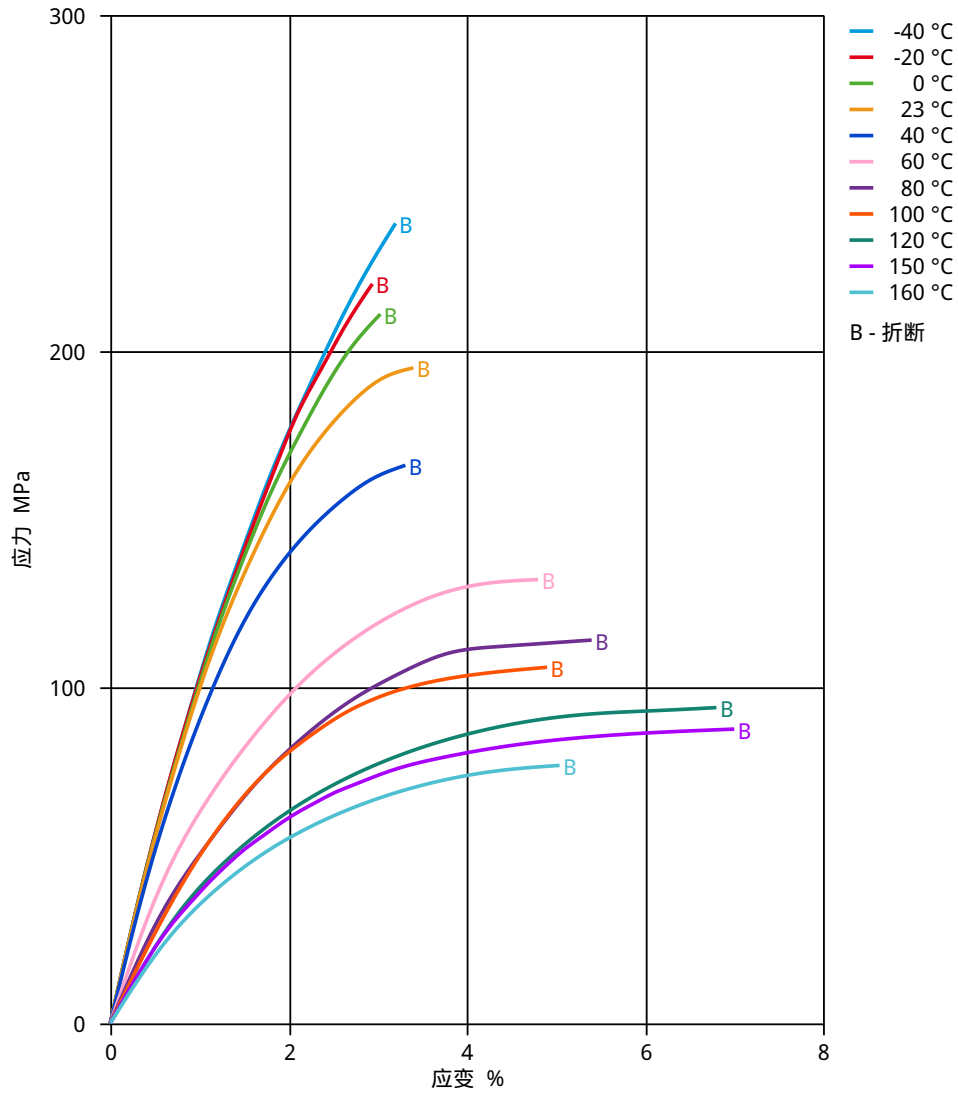




Zytel® 70G30HSL BK039B

NYLON RESIN

应力 - 应变. (dry)

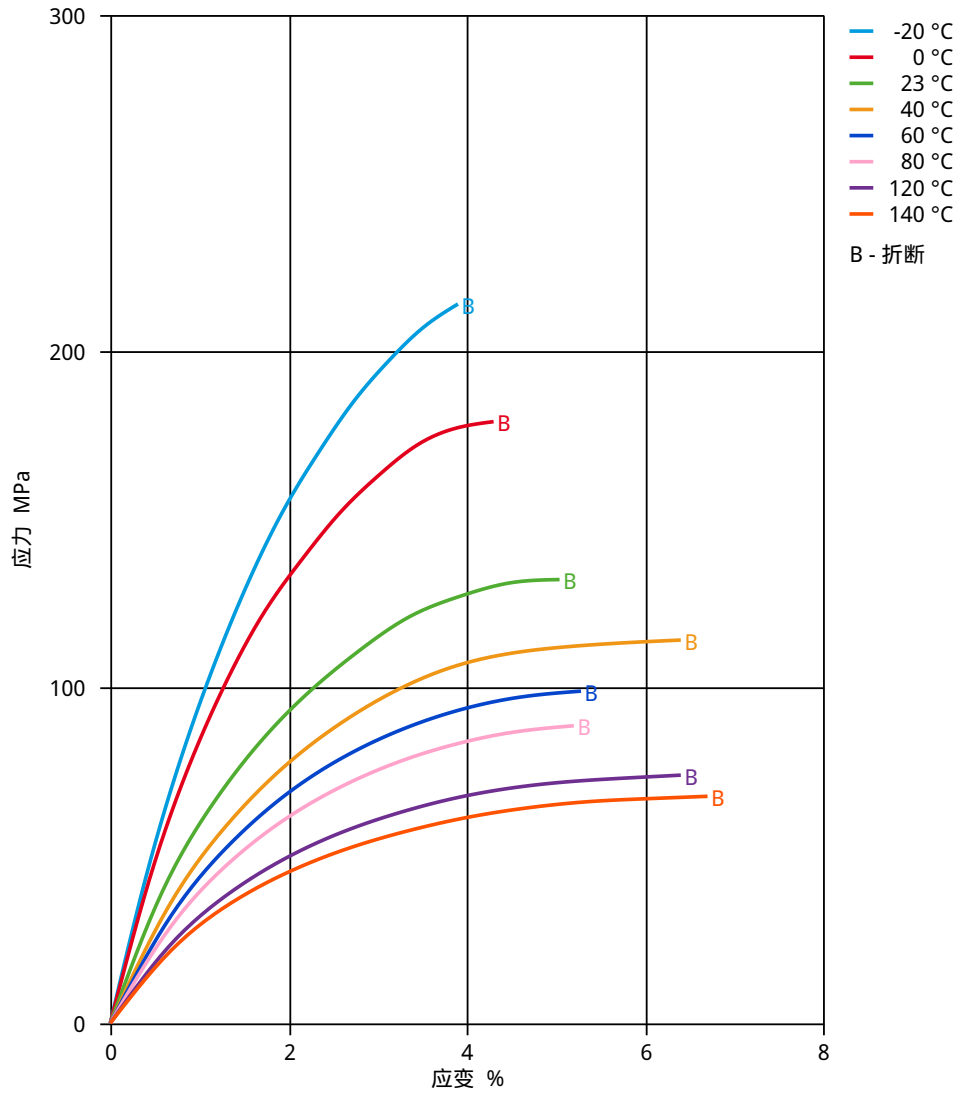




Zytel® 70G30HSL BK039B

NYLON RESIN

应力 - 应变. (cond.)

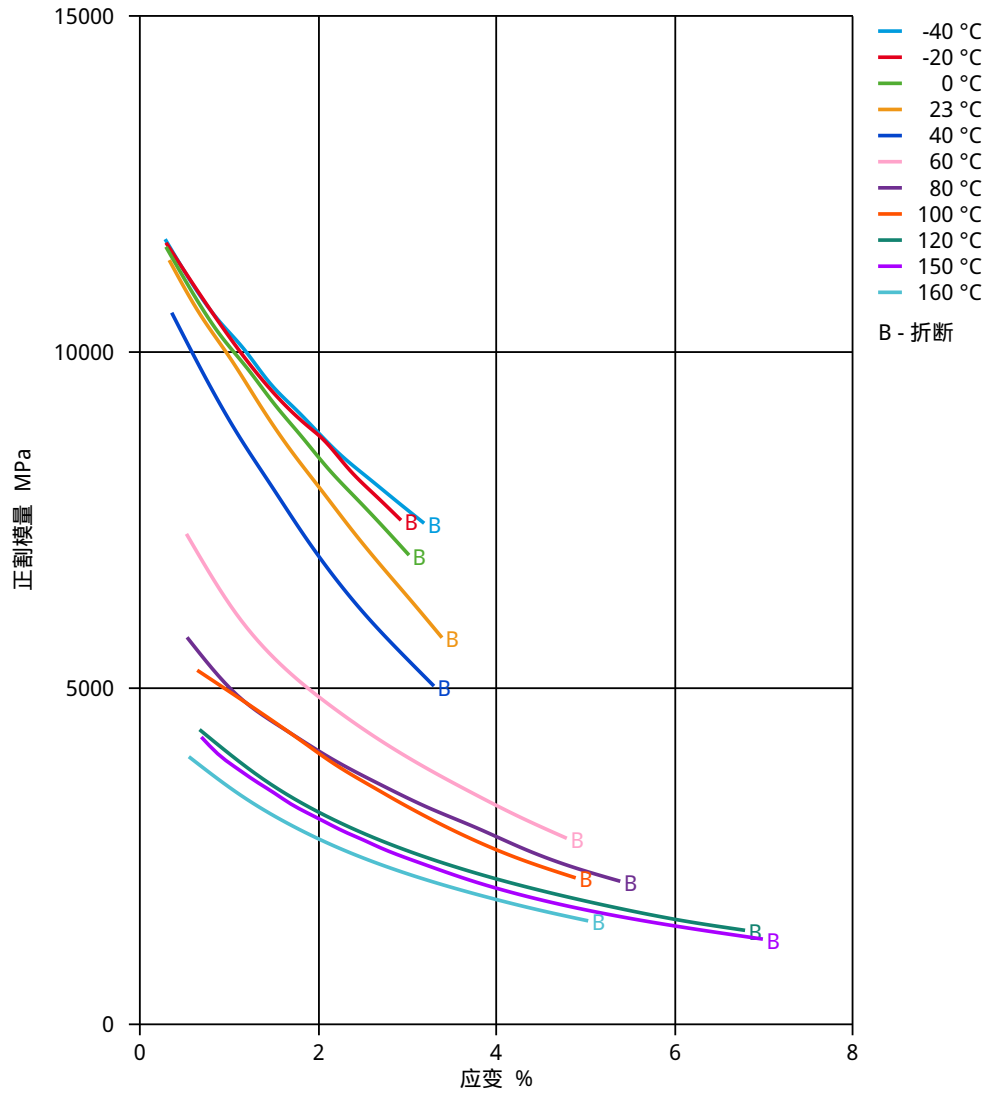




Zytel® 70G30HSL BK039B

NYLON RESIN

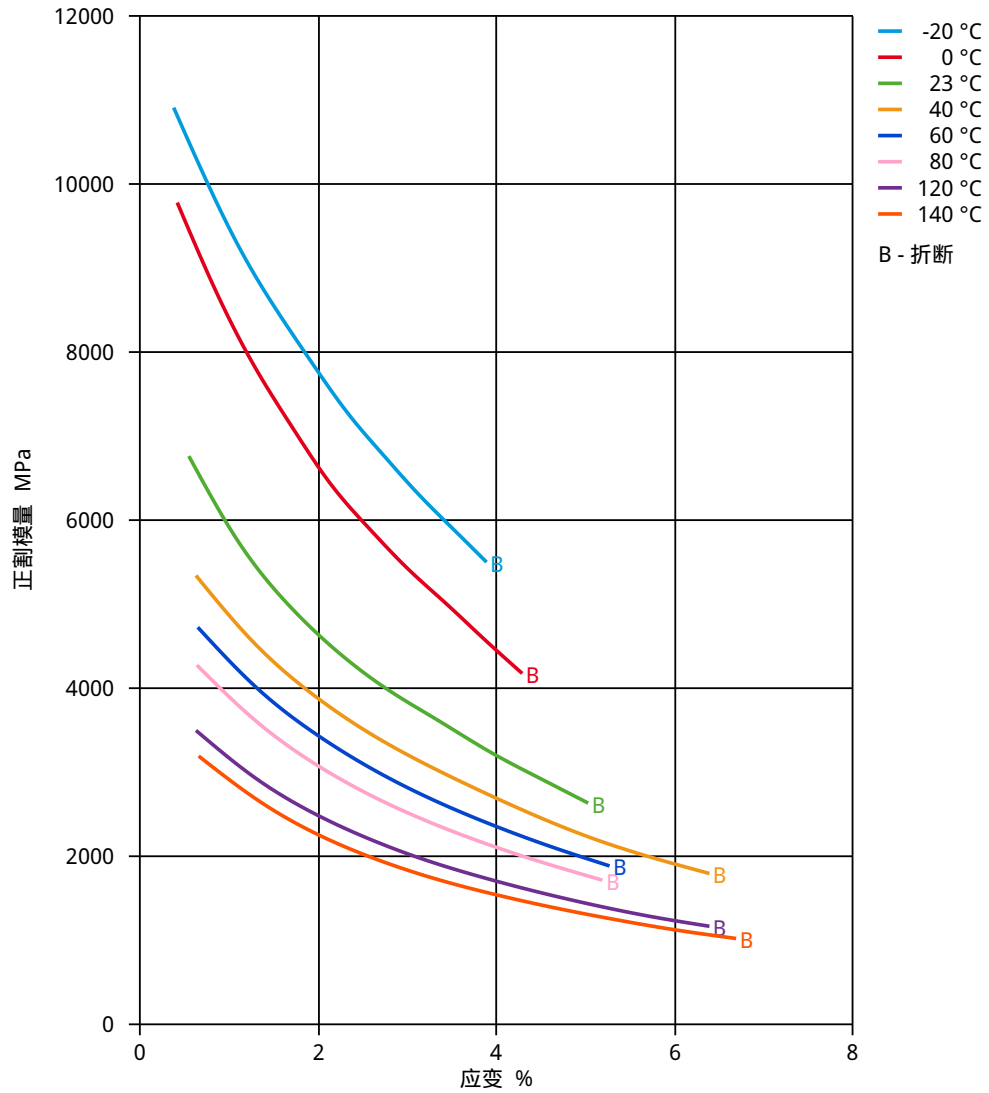
正割模量 - 应变. (dry)



Zytel® 70G30HSL BK039B

NYLON RESIN

正割模量 - 应变. (cond.)

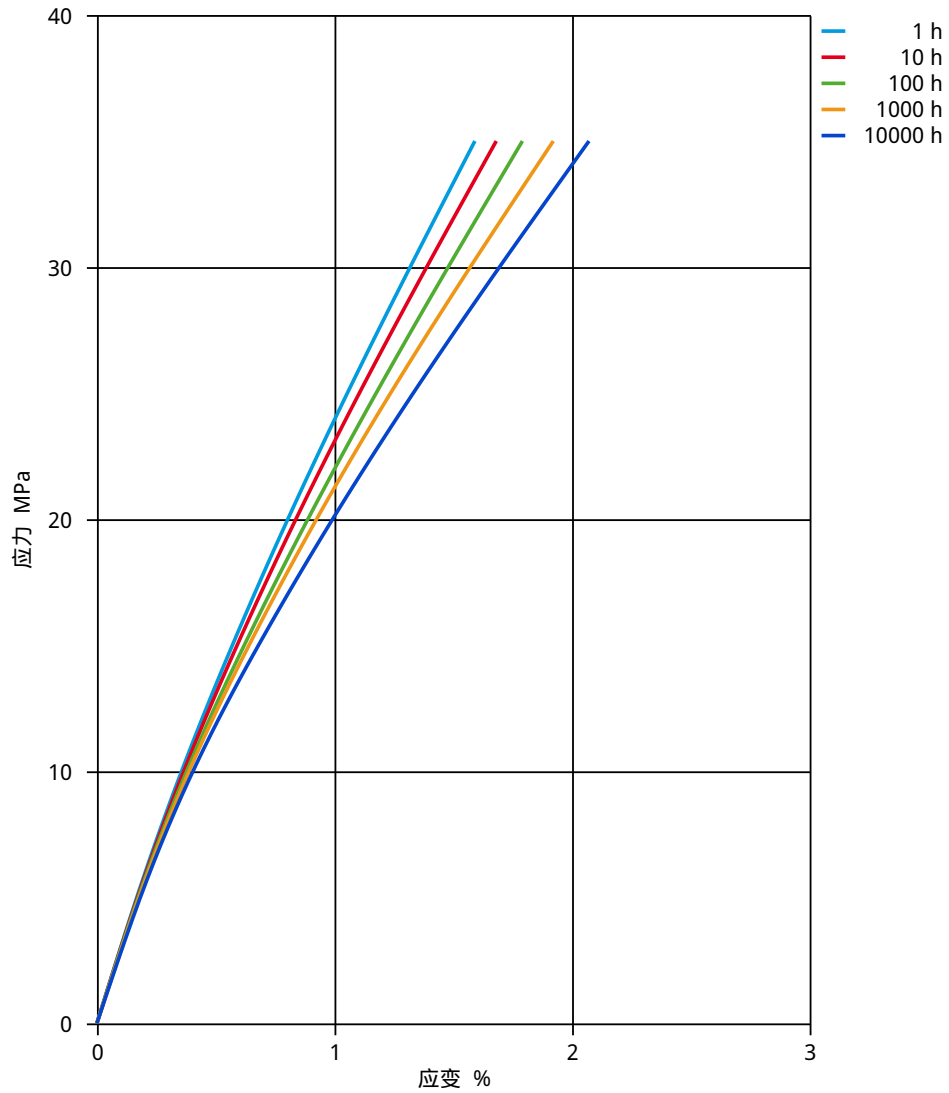




Zytel® 70G30HSL BK039B

NYLON RESIN

应力 - 应变(等时的) 140°C (cond.)

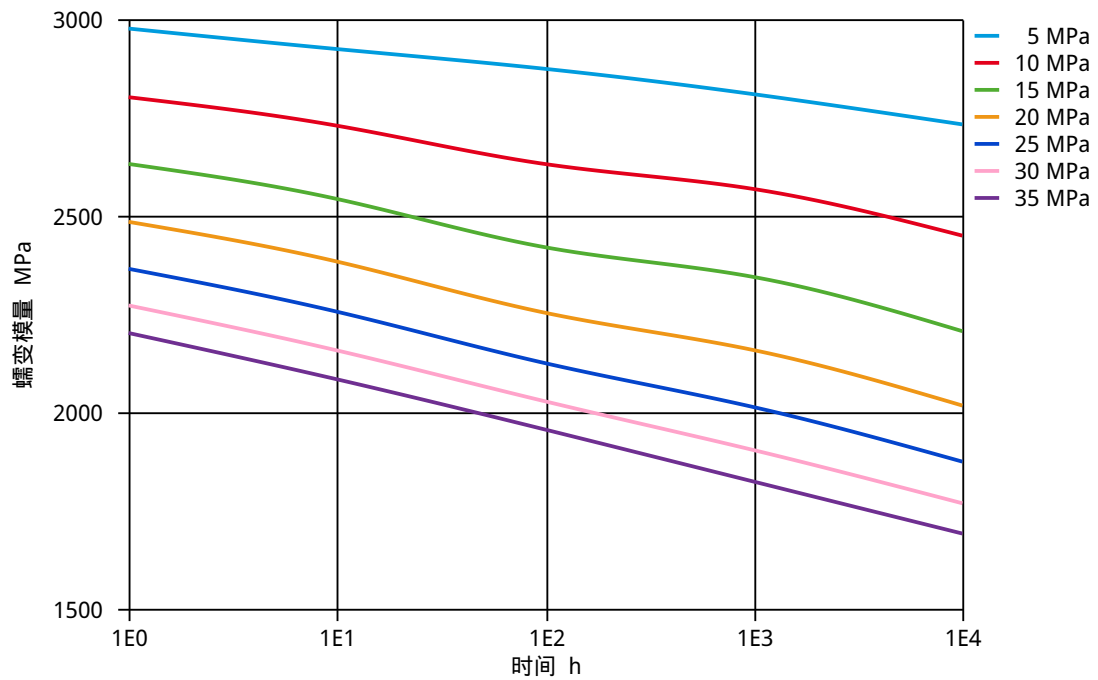




Zytel® 70G30HSL BK039B

NYLON RESIN

蠕变模量 - 时间. 140°C (cond.)



Zytel® 70G30HSL BK039B

NYLON RESIN

耐化学性

酸类

- ✓ 醋酸 (5g/100g), 23°C
- ✓ 柠檬酸溶液 (10g/100g), 23°C
- ✓ 乳酸 (10g/100g), 23°C
- ✗ 盐酸 (36g/100g), 23°C
- ✗ 硝酸 (40g/100g), 23°C
- ✗ 硫酸 (38g/100g), 23°C
- ✗ 硫酸 (5g/100g), 23°C
- ✗ 铬酸溶液 (40g/100g), 23°C

碱类

- ✗ 氢氧化钠溶液 (35g/100g), 23°C
- ✓ 氢氧化钠溶液 (1g/100g), 23°C
- ✓ 氨水(氢氧化铵) (10g/100g), 23°C

醇类

- ✓ 异丙醇, 23°C
- ✓ 甲醇, 23°C
- ✓ 乙醇, 23°C

碳氢化合物

- ✓ n-乙烷, 23°C
- ✓ 甲苯, 23°C
- ✓ 异辛烷, 23°C

酮类

- ✓ 丙酮, 23°C

醚类

- ✓ (二)乙醚, 23°C

矿物油

- ✓ SAE 10W40号多效润滑油, 23°C
- ✓ SAE 10W40号多效润滑油, 130°C
- ✓ SAE 89/90号变速箱润滑油, 130°C
- ✓ 绝缘油, 23°C

标准燃油

- ✓ ISO 1817 燃油1号, 60°C
- ✓ ISO 1817 燃油2号, 60°C
- ✓ ISO 1817 燃油3号, 60°C
- ✓ ISO 1817 燃油4号, 60°C
- ✓ 不含酒精的标准燃油(优先使用C类ISO 1817 燃油), 23°C
- ✓ 含酒精的标准燃油(优先使用4号ISO 1817 燃油), 23°C
- ✓ 柴油(优先使用F类ISO 1817液体), 23°C
- ✗ 柴油(优先使用F类ISO 1817液体), 90°C
- ✗ 柴油(优先使用F类ISO 1817液体), >90°C

Zytel® 70G30HSL BK039B

NYLON RESIN

盐溶液

- ✓ 氯化钠溶液(10g/100g), 23°C
- ✗ 次氯化钠溶液 (10g/100g), 23°C
- ✓ 碳酸钠溶液 (20g/100g), 23°C
- ✓ 碳酸钠溶液 (2g/100g), 23°C
- ✗ 氯化锌溶液 (50g/100g), 23°C

其它

- ✓ 乙酸乙酯, 23°C
- ✗ 过氧化氢, 23°C
- ✓ DOT4号刹车油, 130°C
- ✓ 乙二醇水溶液 (50g/100g), 108°C
- ✓ 1g/100g 基苯氧- 聚环氧乙烷乙烯水溶液, 23°C
- ✓ 油酸 (50g/100g) + 橄榄油 (50g/100g), 23°C
- ✓ 水, 23°C
- ✓ 去离子水, 90°C
- ✗ 酚溶液(5g/100g), 23°C
- ✗ 冷却Glysantin G48 , 1:1水环境, 125°C
- ✓ 尿素 (32.5g/100g), 23°C

Symbols used:

- ✓ possibly resistant
Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).
- ✗ not recommended - see explanation
Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

The information set forth herein is furnished free of charge, is based on technical data that DuPont believes to be reliable, and represents typical values that fall within the normal range of properties. This information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in other processes. It is intended for use by persons having technical skill, at their own discretion and risk. This information should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards and comply with applicable law. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.

CAUTION: Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract or other acknowledgement that is consistent with the DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative.

DuPont's sole warranty is that our products will meet our standard sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DUPONT SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR NON-INFRINGEMENT. DUPONT DISCLAIMS LIABILITY FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.