Zytel® HTN51G35HSL ECO-R 219 NC010 (PRELIMINARY)

HIGH PERFORMANCE POLYAMIDE RESIN

Zytel® HTN51G35HSL NC010是一种35% 玻纤增强, 高温尼龙, 高性能聚酰胺

产品信息

树脂鉴别	PA6T/XT-GF35	ISO 1043
制品标识码	>PA6T/XT-GF35<	ISO 11469
制品标识码	>PPA-GF35<	SAE J1344
ISO名称	ISO 16396-PA6T/XT,GF35,M1GHNR,S10-120	
红外谱图	available	

流变性能

	dry/cond.		
模塑收缩率, 平行	0.2/-	%	ISO 294-4, 2577
模塑收缩率, 垂直	0.6/-	%	ISO 294-4, 2577

机械性能

	dry/cond.		
拉伸模量	12300/12300	MPa	ISO 527-1/-2
拉伸断裂应力, 5mm/min	213/210	MPa	ISO 527-1/-2
断裂伸长率, 5mm/min	2.2/2.1	%	ISO 527-1/-2
简支梁无缺口冲击强度, 23°C	60/55	kJ/m²	ISO 179/1eU
简支梁无缺口冲击强度, -30°C	60/50	kJ/m²	ISO 179/1eU
简支梁缺口冲击强度, 23°C	12/11	kJ/m²	ISO 179/1eA
简支梁缺口冲击强度, -30°C	10/10	kJ/m²	ISO 179/1eA
简支梁缺口冲击强度, -40°C	11/-	kJ/m²	ISO 179/1eA
洛氏硬度, M	108/-		ISO 2039-2
洛氏硬度, R	124/-		ISO 2039-2

热性能

	dry/cond.		
熔融温度, 10°C/min	300/*	°C	ISO 11357-1/-3
熔融温度, 第一次升温	300/*	°C	ISO 11357-1/-3
热变形温度, 1.8 MPa	260/*	°C	ISO 75-1/-2
维卡软化温度, 50°C/h 50N	290/*	°C	ISO 306
线性热膨胀系数, 平行	18/*	E-6/K	ISO 11359-1/-2
线性热膨胀系数, 平行，-40-23°C	18/*	E-6/K	ISO 11359-1/-2
线性热膨胀系数, 垂直	55/*	E-6/K	ISO 11359-1/-2
线性热膨胀系数, 垂直，-40-23°C	55/*	E-6/K	ISO 11359-1/-2
熔体导热系数	0.25	W/(m K)	ISO 22007-2
熔体比热容	1840	J/(kg K)	ISO 22007-4

阻燃性能

	dry/cond.		
1.5mm名义厚度时的阻燃性	HB/*	class	IEC 60695-11-10
测试用试样的厚度	1.5/*	mm	IEC 60695-11-10
厚度为h时的阻燃性	HB/*	class	IEC 60695-11-10
测试用试样的厚度	0.85/*	mm	IEC 60695-11-10
氧指数	24/*	%	ISO 4589-1/-2
FMVSS Class	B		ISO 3795 (FMVSS 302)
燃烧速率, 厚度：1毫米	23[DS]	mm/min	ISO 3795 (FMVSS 302)

[DS]: Derived from similar grade

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其它性能

	dry/cond.		
吸湿率, 2mm	1.4/*	%	类似ISO 62
吸水率, 2mm	4/*	%	类似ISO 62
吸水率, 浸泡 24小时	1/*	%	类似ISO 62
密度	1470/-	kg/m³	ISO 1183

注塑

建议干燥	是	
干燥温度	100	°C
干燥时间，除湿干燥机	6 - 8	h
加工前水分含量	≤ 0.1	%
最优熔体温度	325	°C
最低熔体温度***	320	°C
最高熔体温度	330	°C
最优模具温度	145	°C
最低模具温度	130[1]	°C
最高模具温度	160	°C
保压时间 (h表示部件的最大壁厚mm)	h²+2	s
顶出温度	260	°C

[1]: Higher temperature needed for thinner sections.

特性

加工方法	注塑
添加剂	脱模助剂
特殊性能	热稳定, 耐水解
可持续	含有可回收成分

其他信息

注塑

During molding, use proper protective equipment and adequate ventilation. Avoid exposure to fumes and limit the hold up time and temperature of the resin in the machine. Purge degraded resin carefully with HDPE.

When lower mold temperatures are used, the initial warpage and shrinkage may be lower, but the surface appearance and chemical resistance may be reduced, and the dimensional change may be greater when parts are subsequently heated.

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

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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
- ✔ 滑油OS206 304 Ref.Eng.Oil, ISP, 135°C
- ✔ 自动准双曲面齿轮油壳牌壳牌Donax, 135°C
- ✔ 水力油Pentosin CHF 202, 125°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
- ✔ 柴油EN590, 100°C

其它
- ✔ 乙二醇水溶液 (50g/100g), 108°C
- ✔ 水, 23°C
- ✔ 去离子水, 90°C
- ✔ 冷却Glysantin G48，1:1水环境, 125°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).

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The above data are preliminary and are subject to change as additional data are developed on subsequent lots.
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