



# Rynite® 530HTE NC010

## THERMOPLASTIC POLYESTER RESIN

Rynite® 热塑性聚酯的共性包括良好的机械和物理性能，例如强度和刚性之间良好的平衡、尺寸稳定性、耐蠕变、耐热老化、高表面光泽和固有地高温下良好的电气性能。可在很宽泛的温度范围内加工，有很好的流动性性能。

Rynite® 热塑性聚酯通常应用于要求严苛的汽车、电子电器工业，成功取代金属、热固性材料和其他热塑性聚合物。

Rynite® 530HTE NC010是一种30% 玻纤增强 PET具有优异的高温电气性能

### 总说明

树脂鉴别	PET-GF30	ISO 1043
制品标识码	>PET-GF30<	ISO 11469

### 流变性能

熔体质量流动速率	9 g/10min	ISO 1133
熔体质量流率, 温度	280 °C	ISO 1133
熔体质量流率, 载荷	2.16 kg	ISO 1133
模塑收缩率, 平行	0.1 %	ISO 294-4, 2577
模塑收缩率, 垂直	0.6 %	ISO 294-4, 2577

### 机械性能

拉伸模量	11000 MPa	ISO 527-1/-2
断裂应力	160 MPa	ISO 527-1/-2
断裂伸长率	1.9 %	ISO 527-1/-2
简支梁无缺口冲击强度, +23°C	38 kJ/m <sup>2</sup>	ISO 179/1eU
简支梁缺口冲击强度, +23°C	10.5 kJ/m <sup>2</sup>	ISO 179/1eA
Poisson's ratio	0.34 -	

### 热性能

熔融温度, 10°C/min	252 °C	ISO 11357-1/-3
玻璃化转变温度, 10°C/min	90 °C	ISO 11357-1/-2
热变形温度, 1.80 MPa	230 °C	ISO 75-1/-2
线性热膨胀系数, 平行, -40-23°C	21 E-6/K	ISO 11359-1/-2
线膨胀系数, 平行	21 E-6/K	ISO 11359-1/-2
线性热膨胀系数, 平行, 55-160°C	18 E-6/K	ISO 11359-1/-2
线性热膨胀系数, 垂直, -40-23°C	56 E-6/K	ISO 11359-1/-2
线膨胀系数, 垂直	63 E-6/K	ISO 11359-1/-2
线性热膨胀系数, 垂直, 55-160°C	112 E-6/K	ISO 11359-1/-2
熔体	0.29 W/(m K)	
熔体的比热	1500 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	140 °C	UL 746B



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相对温度指数, 冲击, 1.5mm	140 °C	UL 746B
相对温度指数, 冲击, 3mm	140 °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

厚度为h时的燃烧性	HB class	IEC 60695-11-10
测试用试样的厚度	0.85 mm	IEC 60695-11-10
UL注册	yes -	UL 94
灼热丝燃烧指数, 3mm	800 °C	IEC 60695-2-12
灼热丝起燃温度, 3mm	800 °C	IEC 60695-2-13
FMVSS Class	B -	ISO 3795 (FMVSS 302)
燃烧速率, 厚度: 1毫米	36 mm/min	ISO 3795 (FMVSS 302)

### 电性能

相对介电常数., 100Hz	4.2 -	IEC 62631-2-1
相对介电常数., 1MHz	3.9 -	IEC 62631-2-1
介质损耗因子, 100Hz	14 E-4	IEC 62631-2-1
介质损耗因子, 1MHz	146 E-4	IEC 62631-2-1
体积电阻率	>1E13 Ohm.m	IEC 62631-3-1
表面电阻率	1E14 Ohm	IEC 62631-3-2
介电强度	38 kV/mm	IEC 60243-1
相对漏电起痕指数	200 -	IEC 60112

### 其它性能

密度	1560 kg/m <sup>3</sup>	ISO 1183
熔体密度	1360 kg/m <sup>3</sup>	

### 注塑

建议干燥	是
干燥温度	120 °C
干燥时间, 除湿干燥机	4 - 6 h
加工前水分含量	≤ 0.02 <sup>[1]</sup> %
优良熔体温度	285 °C
注塑 熔体温度	280 °C
注塑 熔体温度	300 °C
螺杆大的切线速度	0.2 m/s
优良模具温度	140 °C
模具温度	120 °C
模具温度	140 <sup>[2]</sup> °C
保压范围	≥ 80 MPa
保压时间	4 s/mm



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背压

As low as MPa  
possible

喷射温度

170 °C

[1]: At levels above 0.02%, strength and toughness will decrease, even though parts may not exhibit surface defects.

[2]: (6mm - 1mm thickness)

### 成型

注塑

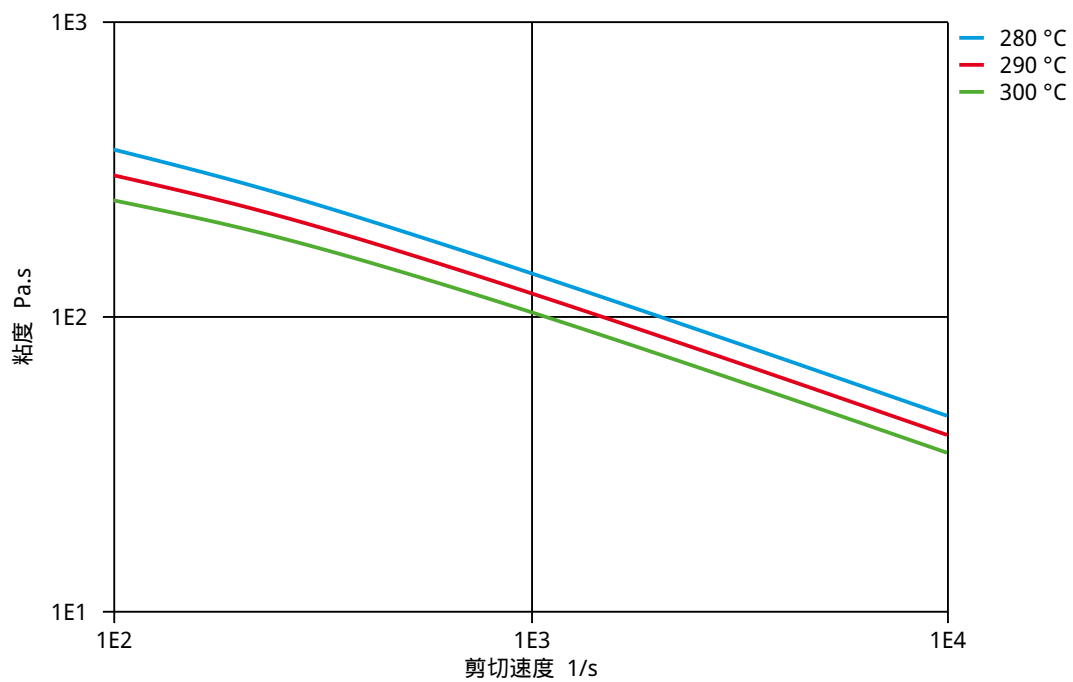
When lower mold temperatures are used, the initial warpage and shrinkage will be lower, but the surface appearance will be poorer and the dimensional change may be greater when parts are subsequently heated.



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THERMOPLASTIC POLYESTER RESIN

粘度 - 剪切速度

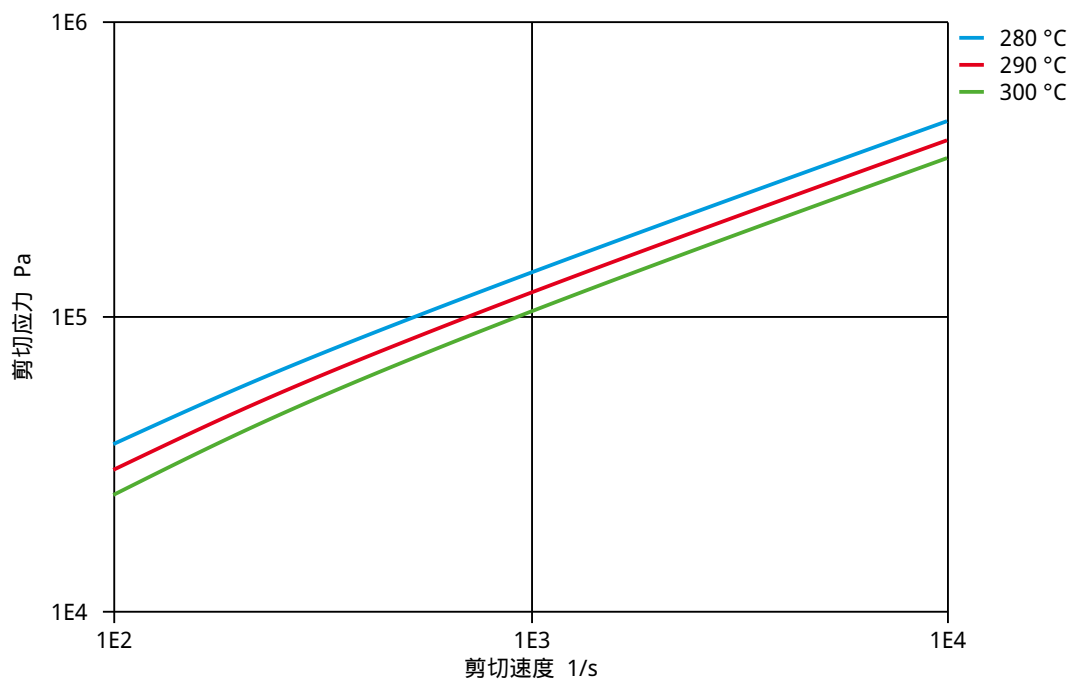




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THERMOPLASTIC POLYESTER RESIN

剪切应力 - 剪切速度

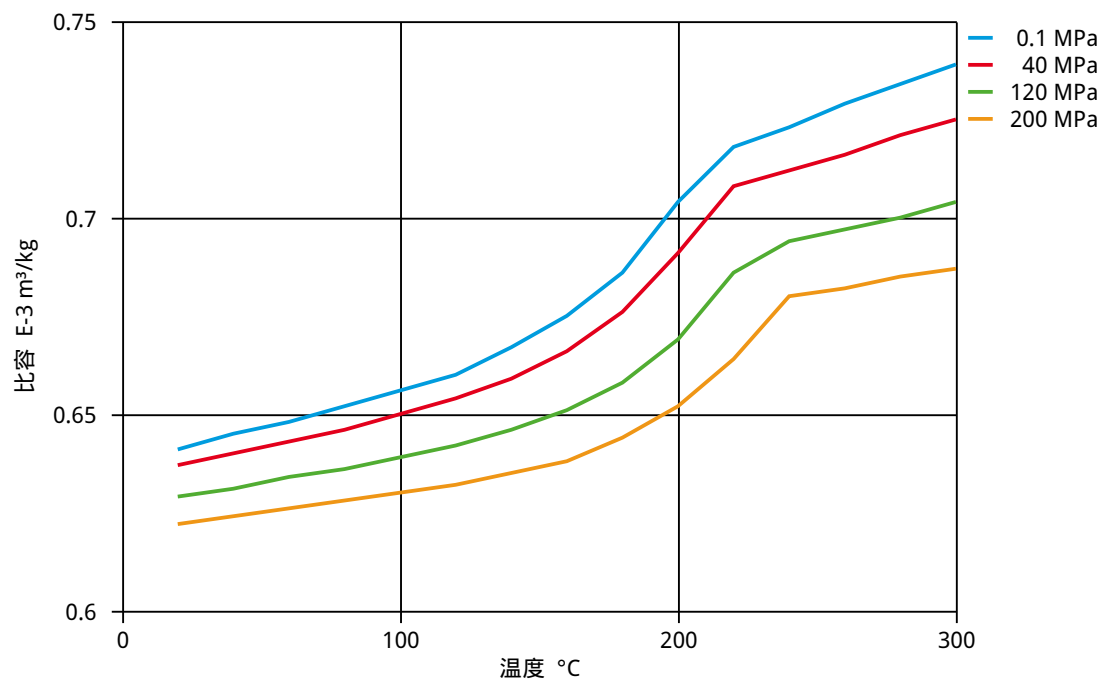




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### 比容 - 温度(pvT)



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