



Rynite® 545 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® 545 NC010是一种45% 玻纤增强 PET

总说明

树脂鉴别	PET-GF45	ISO 1043
制品标识码	>PET-GF45<	ISO 11469

流变性能

粘数	55 cm ³ /g	ISO 307, 1157, 1628
模塑收缩率, 平行	0.2 %	ISO 294-4, 2577
模塑收缩率, 垂直	0.8 %	ISO 294-4, 2577
模塑收缩率	0.35 %	ISO 294-4
模塑收缩率	0.05 %	ISO 294-4

机械性能

拉伸模量	15500 MPa	ISO 527-1/-2
断裂应力	182 MPa	ISO 527-1/-2
断裂伸长率	2 %	ISO 527-1/-2
弯曲模量	13500 MPa	ISO 178
压缩强度	230 MPa	ISO 604
剪切强度	50 MPa	ASTM D 732
拉伸蠕变模量, 1h	15600 MPa	ISO 899-1
拉伸蠕变模量, 1000h	13300 MPa	ISO 899-1
简支梁无缺口冲击强度, +23°C	60 kJ/m ²	ISO 179/1eU
简支梁无缺口冲击强度, -30°C	40 kJ/m ²	ISO 179/1eU
简支梁缺口冲击强度, +23°C	11 kJ/m ²	ISO 179/1eA
简支梁缺口冲击强度, -30°C	11 kJ/m ²	ISO 179/1eA
悬臂梁缺口冲击强度, 23°C	11 kJ/m ²	ISO 180/1A
洛氏硬度	100 -	ISO 2039-2
洛氏硬度, Rockwell	120 -	ISO 2039-2
Poisson's ratio	0.33 -	

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	226 °C	ISO 75-1/-2
热变形温度, 8.00 MPa	180 °C	ISO 75-1/-2
维卡软化温度, 50°C/h 50N	230 °C	ISO 306



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线膨胀系数, 平行	15 E-6/K	ISO 11359-1/-2
线膨胀系数, 垂直	83 E-6/K	ISO 11359-1/-2
固态导热系数	0.32 W/(m K)	
有效导热率 ^a	1.4E-7 m ² /s	
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
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

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 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	0.75 mm	IEC 60695-11-10
UL注册	yes -	UL 94
燃烧性 - 氧指数	20 %	ISO 4589-1/-2
灼热丝燃烧指数, 2mm	750 °C	IEC 60695-2-12
灼热丝燃烧指数, 3mm	850 °C	IEC 60695-2-12
灼热丝起燃温度, 3mm	825 °C	IEC 60695-2-13
灼热丝温度, 无火, 1mm	775 °C	IEC 60335-1
灼热丝温度, 无火, 1.5mm	775 °C	IEC 60335-1
灼热丝温度, 无火, 2mm	775 °C	IEC 60335-1
灼热丝温度, 无火, 3mm	850 °C	IEC 60335-1
FMVSS Class	B -	ISO 3795 (FMVSS 302)
燃烧速率, 厚度: 1毫米	<80 mm/min	ISO 3795 (FMVSS 302)

电性能

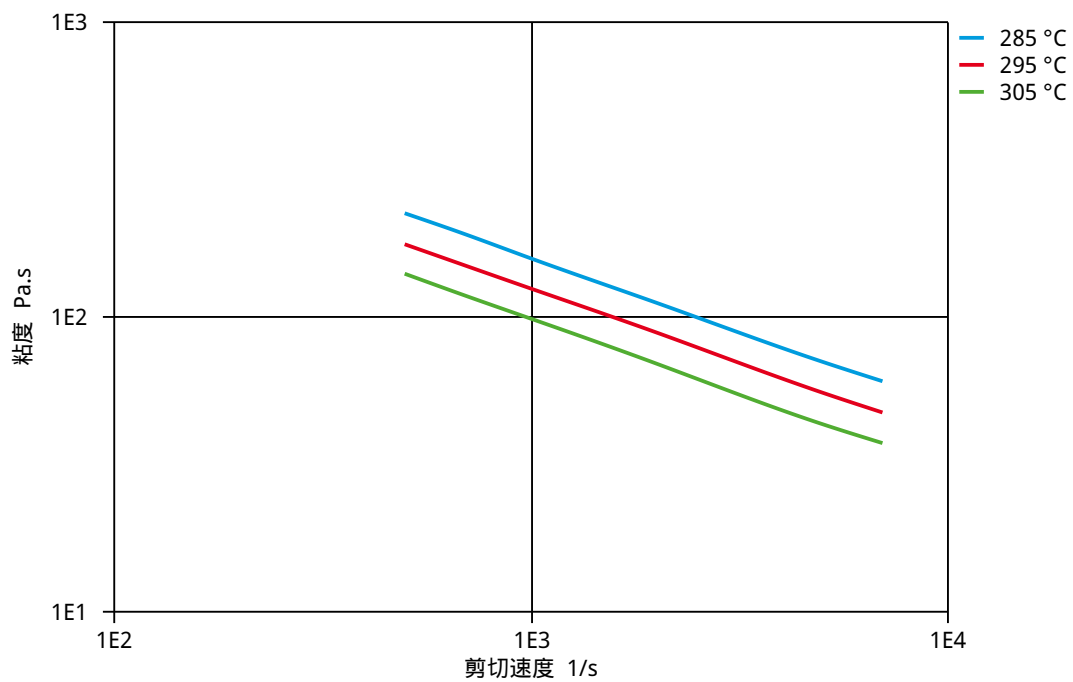
相对介电常数., 100Hz	4.5 -	IEC 62631-2-1
相对介电常数., 1MHz	4.4 -	IEC 62631-2-1
介质损耗因子, 100Hz	70 E-4	IEC 62631-2-1
介质损耗因子, 1MHz	110 E-4	IEC 62631-2-1
体积电阻率	1E13 Ohm.m	IEC 62631-3-1
表面电阻率	1E14 Ohm	IEC 62631-3-2
介电强度	32 kV/mm	IEC 60243-1
相对漏电起痕指数	250 -	IEC 60112
相对漏电起痕指数	2 PLC	UL 746A



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粘度 - 剪切速度

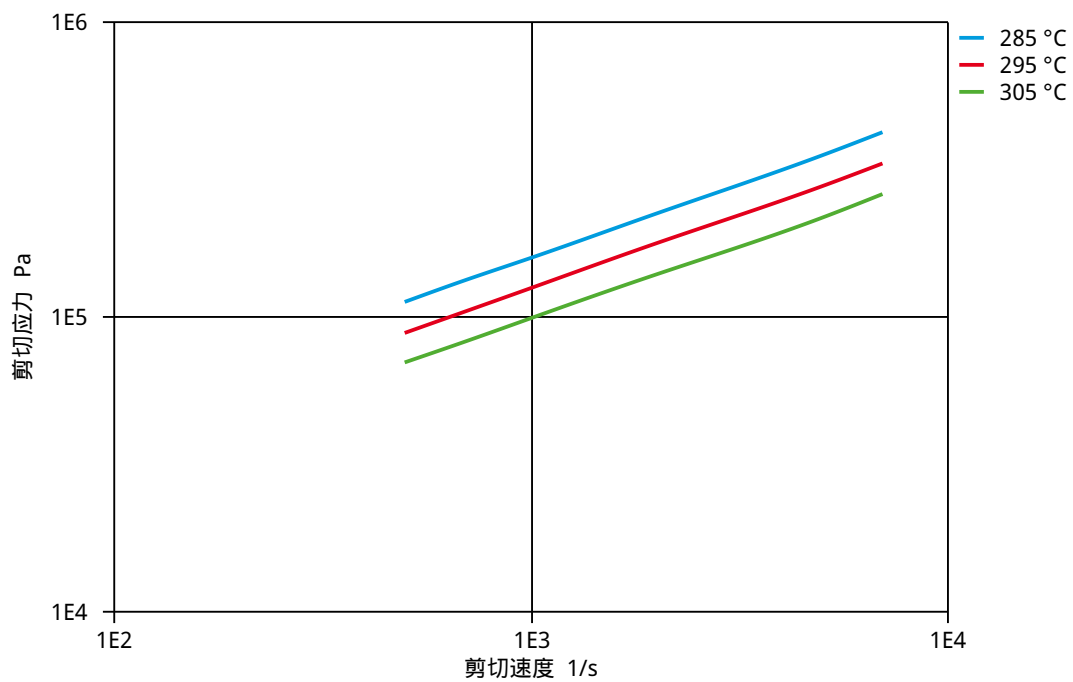




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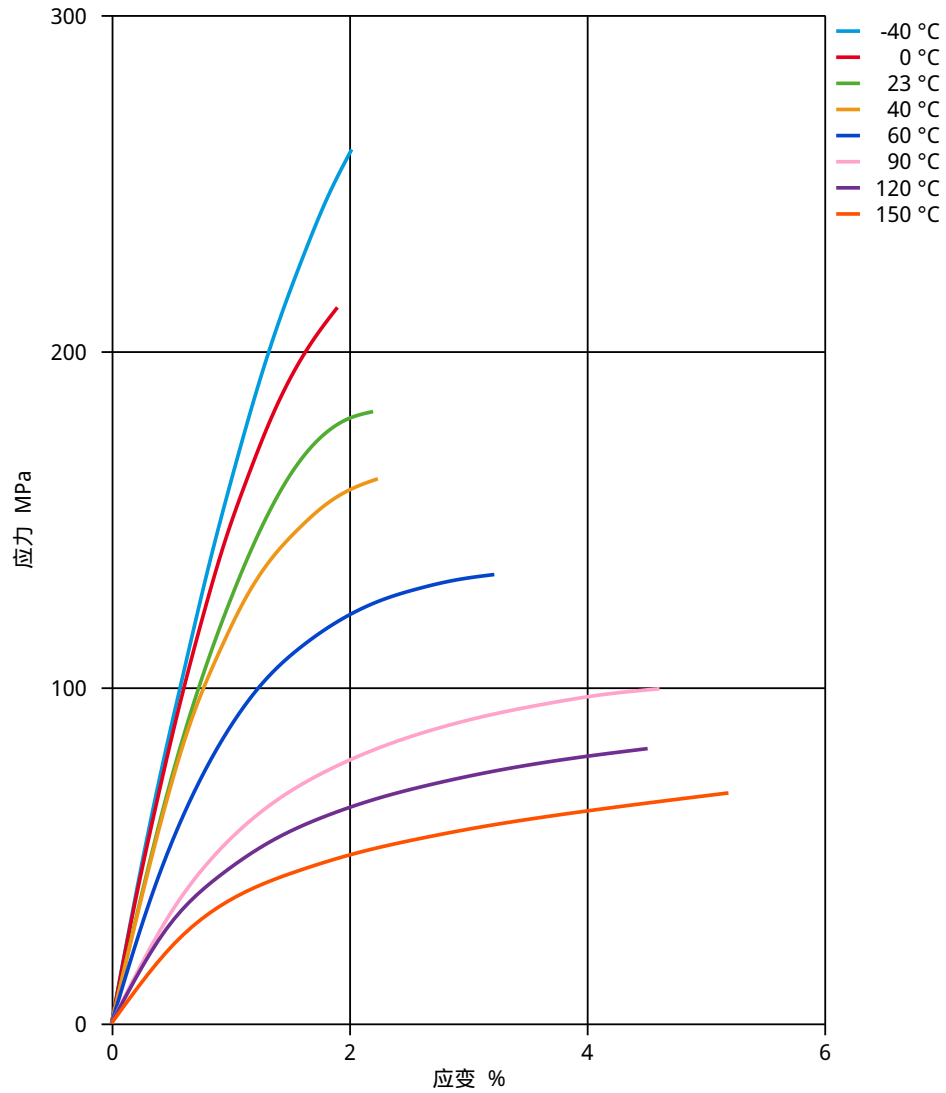
剪切应力 - 剪切速度



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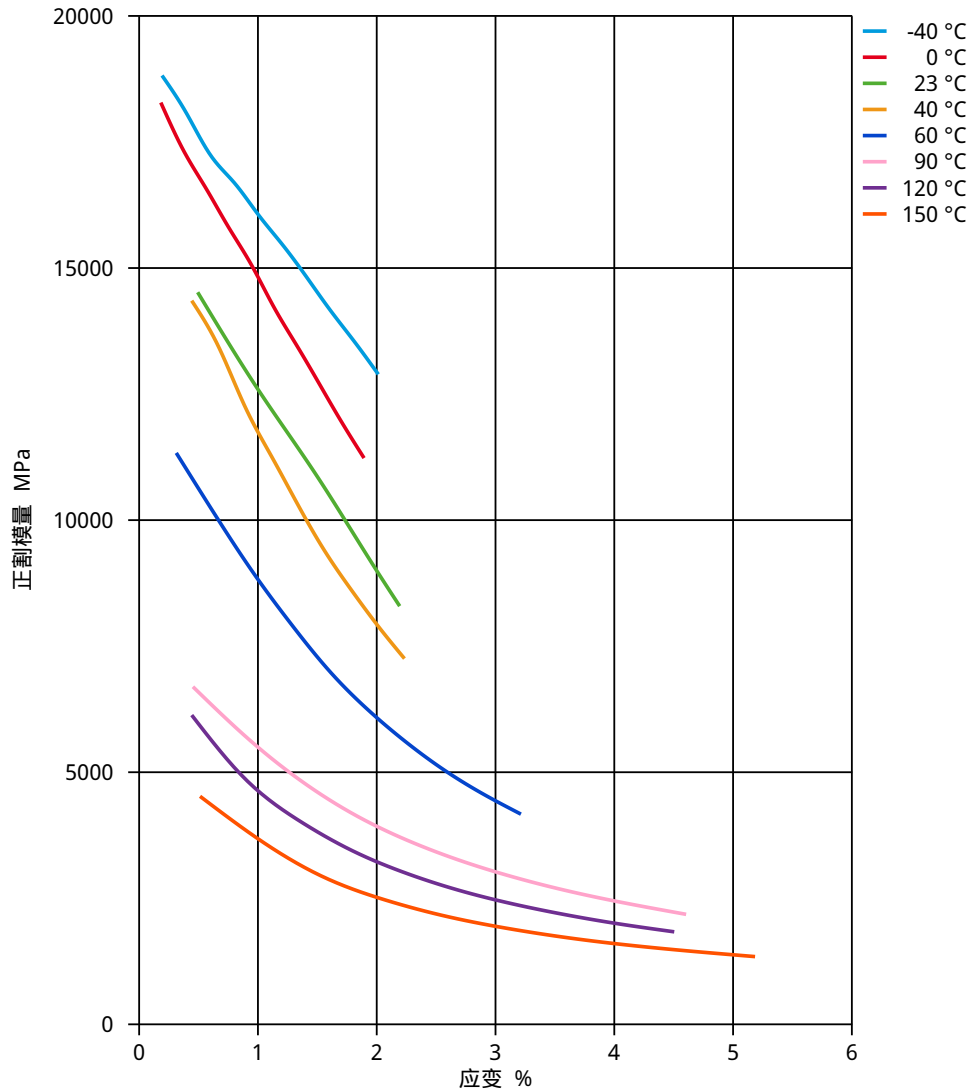
应力 - 应变.



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正割模量 - 应变.



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