

# SABIC Innovative Plastics NORYL PX1005X PPE+PS

Polymer, Thermoplastic, Polyphenylene Ether/PPO, Polystyrene (PS)

SABIC Innovative Plastics (GE Plastics)

## 产品说明

PPE+PS blend. Unfilled. Non-brominated, non-chlorinated FR system. UL94 V0/5VA rated. UL746C F1. Excellent dielectric strength. Suitable for E/E market in indoor/outdoor applications.

物理性能	额定值 (公制)	额定值 (英制)	测试方法
比重	1.12 g/cc	1.12 g/cc	ASTM D792
线性成型收缩率, Flow	0.0050 - 0.0070 cm/cm @ Thickness 3.20 mm	0.0050 - 0.0070 in/in @ Thickness 0.126 in	SABIC Method
线性成型收缩率, 横向	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	on Tensile Bar; SABIC Method
熔体流动速率	37 g/10 min @ Load 5.00 kg, Temperature 280 °C	37 g/10 min @ Load 11.0 lb, Temperature 536 °F	ASTM D1238
化合物熔体指数	37 g/10 min @ Load 5.00 kg, Temperature 280 °C	37 g/10 min @ Load 11.0 lb, Temperature 536 °F	MVR [cm <sup>3</sup> /10 min]; ISO 1133
机械性能	额定值 (公制)	额定值 (英制)	测试方法
抗张强度(断裂)	41.0 MPa	5950 psi	Type I, 50 mm/min; ASTM D638
	43.0 MPa	6240 psi	50 mm/min; ISO 527
抗张强度(屈服)	53.0 MPa	7690 psi	50 mm/min; ISO 527
	55.0 MPa	7980 psi	Type I, 50 mm/min; ASTM D638
伸长率 (断裂)	12.5 %	12.5 %	50 mm/min; ISO 527
	17 %	17 %	Type I, 50 mm/min; ASTM D638
屈服伸长率	2.8 %	2.8 %	50 mm/min; ISO 527
	3.1 %	3.1 %	Type I, 50 mm/min; ASTM D638
拉伸模量	2.40 GPa	348 ksi	50 mm/min; ASTM D638
	2.46 GPa	357 ksi	1 mm/min; ISO 527
弯曲强度	76.0 MPa	11000 psi	2 mm/min; ISO 178
	79.0 MPa	11500 psi	2.6 mm/min, 100 mm span; ASTM D790
	80.0 MPa	11600 psi	1.3 mm/min, 50 mm span; ASTM D790
弯曲模量	2.20 GPa	319 ksi	2.6 mm/min, 100 mm span; ASTM D790
	2.43 GPa	352 ksi	ASTM D790
	2.48 GPa	360 ksi	2 mm/min; ISO 178
悬臂梁缺口冲击强度	3.00 J/cm	5.62 ft-lb/in	ASTM D256
	0.900 J/cm @ Temperature -30.0 °C	1.69 ft-lb/in @ Temperature -22.0 °F	ASTM D256
悬臂梁无缺口冲击强度	11.74 J/cm	21.99 ft-lb/in	ASTM D4812
悬臂梁缺口冲击强度	22.0 kJ/m <sup>2</sup>	10.5 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
简支梁缺口冲击强度	2.30 J/cm <sup>2</sup>	10.9 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eA
电气性能	额定值 (公制)	额定值 (英制)	测试方法
体积电阻率	3.30e+16 ohm-cm	3.30e+16 ohm-cm	ASTM D257
表面电阻	>= 1.00e+16 ohm	>= 1.00e+16 ohm	ASTM D257
介电常数	2.53 @ Frequency 1.00e+6 Hz	2.53 @ Frequency 1.00e+6 Hz	ASTM D150
	2.67 @ Frequency 50.0 - 60.0 Hz	2.67 @ Frequency 50.0 - 60.0 Hz	ASTM D150
介电强度	17.7 kV/mm @ Thickness 3.20 mm	450 kV/in @ Thickness 0.126 in	in oil; ASTM D149
耗散因数	0.0026 @ Frequency 1.00e+6 Hz	0.0026 @ Frequency 1.00e+6 Hz	ASTM D150
	0.012 @ Frequency 50.0 - 60.0 Hz	0.012 @ Frequency 50.0 - 60.0 Hz	ASTM D150
耐电弧性	0.00 - 60 sec	0.00 - 60 sec	Tungsten; ASTM D495
相比耐漏电起痕指数(CTI)	400 - 600 V	400 - 600 V	UL 746A

热丝引燃 (HWI)	30 - 60 sec	30 - 60 sec	UL 746A
高电弧燃烧,HAI	30 - 60 arcs	30 - 60 arcs	UL 746A
高压电弧跟踪率,HVTR	>= 150 mm/min	>= 5.91 in/min	UL 746A
<b>热性能</b>	<b>额定值 (公制)</b>	<b>额定值 (英制)</b>	<b>测试方法</b>
线性热膨胀系数 - 流动	89.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @ Temperature -40.0 - 40.0 $^\circ\text{C}$	49.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @ Temperature -40.0 - 104 $^\circ\text{F}$	ASTM E 831
线性热膨胀系数,横向流动	103 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @ Temperature -40.0 - 40.0 $^\circ\text{C}$	57.2 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @ Temperature -40.0 - 104 $^\circ\text{F}$	ASTM E 831
载荷下热变形温度(0.46 MPa)	88.0 $^\circ\text{C}$	190 $^\circ\text{F}$	Edgew 120*10*4 sp=100mm; ISO 75/Be
	84.0 $^\circ\text{C}$ @ Thickness 3.20 mm	183 $^\circ\text{F}$ @ Thickness 0.126 in	unannealed; ASTM D648
	88.0 $^\circ\text{C}$ @ Thickness 6.40 mm	190 $^\circ\text{F}$ @ Thickness 0.252 in	unannealed; ASTM D648
载荷下热变形温度(1.8 MPa)	75.0 $^\circ\text{C}$	167 $^\circ\text{F}$	Edgew 120*10*4 sp=100mm; ISO 75/Ae
	72.0 $^\circ\text{C}$ @ Thickness 3.20 mm	162 $^\circ\text{F}$ @ Thickness 0.126 in	unannealed; ASTM D648
	78.0 $^\circ\text{C}$ @ Thickness 6.40 mm	172 $^\circ\text{F}$ @ Thickness 0.252 in	unannealed; ASTM D648
维卡软化温度	94.0 $^\circ\text{C}$	201 $^\circ\text{F}$	Rate B/50; ISO 306
	97.0 $^\circ\text{C}$	207 $^\circ\text{F}$	Rate B/120; ISO 306
	107 $^\circ\text{C}$	225 $^\circ\text{F}$	Rate B/50; ASTM D1525
UL RTI	95.0 $^\circ\text{C}$	203 $^\circ\text{F}$	UL 746B
UL RTI,机械冲击	80.0 $^\circ\text{C}$	176 $^\circ\text{F}$	UL 746B
UL RTI,机械无冲击	95.0 $^\circ\text{C}$	203 $^\circ\text{F}$	UL 746B
可燃性(UL94)	HB @ Thickness 1.01 mm	HB @ Thickness 0.0398 in	UL 94
	V-0 @ Thickness 1.47 mm	V-0 @ Thickness 0.0579 in	UL 94
	5VA @ Thickness 2.99 mm	5VA @ Thickness 0.118 in	UL 94
<b>材料描述</b>			<b>测试方法</b>
UV-light, water exposure/immersion	F1		UL 746C