

## SABIC Innovative Plastics Noryl GTX GTX965 PPE+PA66

Category : Polymer , Thermoplastic , Polyester, TP , Polyphenylene Ether/PPO

### Material Notes:

NORYL GTX965 is a mineral reinforced PPE/PA blend. It offers excellent surface appearance, processability and dimensional stability at elevated temperatures. The best molding condition for good appearance is 540 F (melt) and 170 - 190 F (mold). This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Noryl-GTX-GTX965-PPEPA66.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Noryl-GTX-GTX965-PPEPA66.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.25 g/cc	1.25 g/cc	ASTM D 792
Density	1.25 g/cc	0.0452 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.10 %	0.10 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	1.1 % @Temperature 23.0 <sup>o</sup> C	1.1 % @Temperature 73.4 <sup>o</sup> F	ISO 62
Linear Mold Shrinkage, Flow	0.0080 - 0.012 cm/cm	0.0080 - 0.012 in/in	on tensile bar; SABIC Method
	0.0080 - 0.010 cm/cm @Thickness 3.20 mm	0.0080 - 0.010 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0070 - 0.0090 cm/cm @Thickness 3.20 mm	0.0070 - 0.0090 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	11 g/10 min @Load 5.00 kg, Temperature 280 <sup>o</sup> C	11 g/10 min @Load 11.0 lb, Temperature 536 <sup>o</sup> F	[cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133
	12.7 g/10 min @Load 5.00 kg, Temperature 280 <sup>o</sup> C	12.7 g/10 min @Load 11.0 lb, Temperature 536 <sup>o</sup> F	ASTM D 1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	60.0 MPa	8700 psi	Type I, 5 mm/min; ASTM D 638
	60.0 MPa	8700 psi	5 mm/min; ISO 527
Tensile Strength, Yield	60.0 MPa	8700 psi	5 mm/min; ISO 527
	61.0 MPa	8850 psi	Type I, 5 mm/min; ASTM D 638
Elongation at Break	7.0 %	7.0 %	5 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
			Type I, 5 mm/min; ASTM D 638
Elongation at Yield	3.0 %	3.0 %	5 mm/min; ISO 527
	4.0 %	4.0 %	Type I, 5 mm/min; ASTM D 638
Tensile Modulus	3.66 GPa	531 ksi	5 mm/min; ASTM D 638
	4.10 GPa	595 ksi	1 mm/min; ISO 527
Flexural Yield Strength	100 MPa	14500 psi	2 mm/min; ISO 178
	105 MPa	15200 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	3.90 GPa	566 ksi	1.3 mm/min, 50 mm span; ASTM D 790
	4.00 GPa	580 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.430 J/cm	0.806 ft-lb/in	ASTM D 256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	0.530 J/cm	0.993 ft-lb/in	ASTM D 256
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Unnotched	5.30 J/cm	9.93 ft-lb/in	ASTM D 4812
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Notched (ISO)	4.00 kJ/m <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	4.00 kJ/m <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched (ISO)	47.0 kJ/m <sup>2</sup>	22.4 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	55.0 kJ/m <sup>2</sup>	26.2 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	5.50 J/cm <sup>2</sup>	26.2 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Mechanical Properties	Metric	English	Comments
	6.50 J/cm <sup>2</sup> @Temperature 23.0 Â°C	20.0 ft-lb/in <sup>2</sup> @Temperature 73.4 Â°F	IEC 60695-10-4 sp=62mm, ISO 179/1e0
Charpy Impact, Notched	0.300 J/cm <sup>2</sup> @Temperature -30.0 Â°C	1.43 ft-lb/in <sup>2</sup> @Temperature -22.0 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	0.400 J/cm <sup>2</sup> @Temperature 23.0 Â°C	1.90 ft-lb/in <sup>2</sup> @Temperature 73.4 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Impact Test	7.00 J @Temperature 23.0 Â°C	5.16 ft-lb @Temperature 73.4 Â°F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	42.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	23.3 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ASTM E 831
	50.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	27.8 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
CTE, linear, Transverse to Flow	45.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	25.0 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ASTM E 831
	50.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	27.8 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
Deflection Temperature at 0.46 MPa (66 psi)	200 Â°C	392 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	204 Â°C @Thickness 3.20 mm	399 Â°F @Thickness 0.126 in	unannealed; ASTM D 648
Vicat Softening Point	195 Â°C	383 Â°F	Rate B/50; ISO 306
	200 Â°C	392 Â°F	Rate B/120; ISO 306
	204 Â°C	399 Â°F	Rate B/50; ASTM D 1525

Descriptive Properties	Value	Comments
Ball Pressure Test, 75Â°C +/- 2Â°C	Pass	IEC 60695-10-2

## **Contact Songhan Plastic Technology Co.,Ltd.**

**Website : [www.lookpolymers.com](http://www.lookpolymers.com)**

**Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)**

**Tel : +86 021-51131842**

**Mobile : +86 13061808058**

**Skype : lookpolymers**

**Address : United North Road 215,Fengxian District, Shanghai City,China**