

## SABIC Innovative Plastics Noryl GTX APS8740 PPE+PPS

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polyphenylene Sulfide (PPS)

### Material Notes:

Noryl\* APS8740 resin is a glass filled, high performance blend of PPE/PPS that exhibits an excellent balance of high-heat resistance, strength, flame retardant, and conductivity. This grade can be electro-statically painted or powder coated without the need for a conductive primer. The resin is injection moldable and only available in black. 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-APS8740-PPEPPS.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Noryl-GTX-APS8740-PPEPPS.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.62 g/cc	1.62 g/cc	ASTM D 792
Density	1.62 g/cc	0.0585 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.00 %	0.00 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	0.020 % @Temperature 23.0 <sup>o</sup> C	0.020 % @Temperature 73.4 <sup>o</sup> F	ISO 62
Linear Mold Shrinkage, Flow	0.0030 - 0.0080 cm/cm @Thickness 3.20 mm	0.0030 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	16 g/10 min @Load 5.00 kg, Temperature 300 <sup>o</sup> C	16 g/10 min @Load 11.0 lb, Temperature 572 <sup>o</sup> F	ASTM D 1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	79.0 MPa	11500 psi	Type I, 5 mm/min; ASTM D 638
	89.0 MPa	12900 psi	5 mm/min; ISO 527
Tensile Strength, Yield	79.0 MPa	11500 psi	Type I, 5 mm/min; ASTM D 638
	89.0 MPa	12900 psi	5 mm/min; ISO 527
Elongation at Break	0.60 %	0.60 %	Type I, 5 mm/min; ASTM D 638
	0.60 %	0.60 %	5 mm/min; ISO 527
Elongation at Yield	0.60 %	0.60 %	5 mm/min; ISO 527
	0.60 %	0.60 %	Type I, 5 mm/min; ASTM D 638
Tensile Modulus	14.99 GPa	2174 ksi	1 mm/min; ISO 527
	16.3 GPa	2360 ksi	5 mm/min; ASTM D 638

Mechanical Properties	Metric	English	Comments
Flexural Yield Strength	118 MPa	17100 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	12.74 GPa	1848 ksi	1.3 mm/min, 50 mm span; ASTM D 790
	13.64 GPa	1978 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.340 J/cm @Temperature 23.0 Â°C	0.637 ft-lb/in @Temperature 73.4 Â°F	ASTM D 256
	0.370 J/cm @Temperature -30.0 Â°C	0.693 ft-lb/in @Temperature -22.0 Â°F	ASTM D 256
Izod Impact, Notched (ISO)	3.00 kJ/mÂ² @Temperature 23.0 Â°C	1.43 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1A
	4.00 kJ/mÂ² @Temperature -30.0 Â°C	1.90 ft-lb/inÂ² @Temperature -22.0 Â°F	80*10*4; ISO 180/1A
Charpy Impact, Notched	0.400 J/cmÂ² @Temperature 23.0 Â°C	1.90 ft-lb/inÂ² @Temperature 73.4 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Impact Test	3.00 J @Temperature 23.0 Â°C	2.21 ft-lb @Temperature 73.4 Â°F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	27.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	15.0 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
	27.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	15.0 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ASTM E 831
CTE, linear, Transverse to Flow	27.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	15.0 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
	49.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	27.2 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ASTM E 831
Deflection Temperature at 1.8 MPa	231 Â°C	448 Â°F	

<small>(264 psi)</small> Thermal Properties	Metric	English	Flatw 80*10*4 sp=64mm; ISO 75/Af Comments
	234 Â°C @Thickness 3.20 mm	453 Â°F @Thickness 0.126 in	unannealed; ASTM D 648
Vicat Softening Point	231 Â°C	448 Â°F	Rate B/50; ASTM D 1525
	233 Â°C	451 Â°F	Rate B/120; ISO 306
Flammability, UL94	HB @Thickness 2.00 mm	HB @Thickness 0.0787 in	UL 94
	HB @Thickness 2.00 mm	HB @Thickness 0.0787 in	UL 94 by SABIC-IP
	V-2 @Thickness 0.500 mm	V-2 @Thickness 0.0197 in	UL 94 by SABIC-IP
	V-2 @Thickness 0.500 mm	V-2 @Thickness 0.0197 in	UL 94
	V-1 @Thickness 0.500 mm	V-1 @Thickness 0.0197 in	UL 94
	V-1 @Thickness 0.500 mm	V-1 @Thickness 0.0197 in	UL 94 by SABIC-IP
	V-0 @Thickness 2.00 mm	V-0 @Thickness 0.0787 in	UL 94 by SABIC-IP
	V-0 @Thickness 2.00 mm	V-0 @Thickness 0.0787 in	UL 94
	5VB @Thickness 0.500 mm	5VB @Thickness 0.0197 in	UL 94 by SABIC-IP
	5VA @Thickness 0.500 mm	5VA @Thickness 0.0197 in	UL 94 by SABIC-IP

Electrical Properties	Metric	English	Comments
Volume Resistivity	25000 ohm-cm	25000 ohm-cm	ASTM D 257
	25000 ohm-cm	25000 ohm-cm	IEC 60093
Comparative Tracking Index	100 V	100 V	IEC 60112

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