

## SABIC Innovative Plastics Noryl MX5569 PPE+PS

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

### Material Notes:

PPE+PS blend. High Heat. Good balance of flow and impact. Offers good aging performance under heat. Typical applications include Automotive Interiors and Lighting. 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-MX5569-PPEPS.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Noryl-MX5569-PPEPS.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.05 g/cc	1.05 g/cc	ASTM D 792
Density	1.05 g/cc	0.0379 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.050 %	0.050 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	0.25 % @Temperature 23.0 <sup>o</sup> C	0.25 % @Temperature 73.4 <sup>o</sup> F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 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	7.5 g/10 min @Load 5.00 kg, Temperature 280 <sup>o</sup> C	7.5 g/10 min @Load 11.0 lb, Temperature 536 <sup>o</sup> F	ASTM D 1238
	8.0 g/10 min @Load 5.00 kg, Temperature 280 <sup>o</sup> C	8.0 g/10 min @Load 11.0 lb, Temperature 536 <sup>o</sup> F	[cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	114	114	ISO 2039-2
Tensile Strength at Break	46.0 MPa	6670 psi	50 mm/min; ISO 527
	47.0 MPa	6820 psi	Type I, 50 mm/min; ASTM D 638
Tensile Strength, Yield	51.0 MPa	7400 psi	50 mm/min; ISO 527
	53.0 MPa	7690 psi	Type I, 50 mm/min; ASTM D 638
Elongation at Break	22 %	22 %	50 mm/min; ISO 527

Mechanical Properties	22.5 % Metric	22.5 % English	Type I, 50 mm/min; ASTM D 638 Comments
Elongation at Yield	2.9 %	2.9 %	Type I, 50 mm/min; ASTM D 638
	4.1 %	4.1 %	50 mm/min; ISO 527
Tensile Modulus	2.06 GPa	299 ksi	50 mm/min; ASTM D 638
	2.14 GPa	310 ksi	1 mm/min; ISO 527
Flexural Yield Strength	78.0 MPa	11300 psi	2 mm/min; ISO 178
	82.0 MPa	11900 psi	2.6 mm/min, 100 mm span; ASTM D 790
	89.0 MPa	12900 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	2.12 GPa	307 ksi	2.6 mm/min, 100 mm span; ASTM D 790
	2.15 GPa	312 ksi	2 mm/min; ISO 178
	2.17 GPa	315 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	1.79 J/cm @Temperature -30.0 °C	3.35 ft-lb/in @Temperature -22.0 °F	ASTM D 256
	3.79 J/cm @Temperature 23.0 °C	7.10 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Notched (ISO)	17.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	8.09 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*4; ISO 180/1A
	27.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	12.8 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	80*10*4; ISO 180/1A
Charpy Impact, Notched	2.90 J/cm <sup>2</sup> @Temperature 23.0 °C	13.8 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Impact Test	47.0 J @Temperature 23.0 °C	34.7 ft-lb @Temperature 73.4 °F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
	73.8 µm/m-°C	41.0 µin/in-°F	

CTE, linear, Parallel to Flow Thermal Properties	Metric @Temperature -40.0 - 40.0 Â°C	English @Temperature -40.0 - 104 Â°F	ASTM E 831 Comments
	73.8 Âµm/m-Â°C	41.0 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
CTE, linear, Transverse to Flow	77.4 Âµm/m-Â°C	43.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	77.4 Âµm/m-Â°C	43.0 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
Deflection Temperature at 0.46 MPa (66 psi)	141 Â°C	286 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	142 Â°C	288 Â°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Deflection Temperature at 1.8 MPa (264 psi)	126 Â°C	259 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	126 Â°C	259 Â°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	144 Â°C	291 Â°F	Rate B/50; ISO 306
	145 Â°C	293 Â°F	Rate B/50; ASTM D 1525
	148 Â°C	298 Â°F	Rate B/120; ISO 306

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

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