

## SABIC Innovative Plastics NORYL FP5140HF PPE+PS

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

### Material Notes:

Noryl\*FP5140HF is an unfilled, injection moldable modified polyphenylene ether resin with an ISO306 Vicat B/120 of 100 deg C. Designed for good dimensional stability and high flow, this resin also uses non-chlorinated, non-brominated FR additives to achieve a V1 UL94 rating at 1.5mm with a specific density of 1.11g/cm<sup>3</sup>. Noryl FP5140 may be an excellent material for Flat Panel TV enclosure applications requiring good rheological properties, heat resistance, hydrolysis resistance, low density and thin wall flame resistance

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-NORYL-FP5140HF-PPEPS.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-NORYL-FP5140HF-PPEPS.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.11 g/cc	1.11 g/cc	ASTM D792
Density	1.11 g/cc	0.0401 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.0500 %	0.0500 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.18 %	0.18 %	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
Melt Index of Compound	17 g/10 min @Load 1.20 kg, Temperature 280 °C	17 g/10 min @Load 2.65 lb, Temperature 536 °F	MVR [cm <sup>3</sup> /10 min]; ISO 1133
	48 g/10 min @Load 2.16 kg, Temperature 280 °C	48 g/10 min @Load 4.76 lb, Temperature 536 °F	MVR [cm <sup>3</sup> /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	44.0 MPa	6380 psi	50 mm/min; ISO 527
Tensile Strength, Yield	48.0 MPa	6960 psi	50 mm/min; ISO 527
Elongation at Break	21.4 %	21.4 %	50 mm/min; ISO 527
Elongation at Yield	2.7 %	2.7 %	50 mm/min; ISO 527
Tensile Modulus	2.53 GPa	367 ksi	1 mm/min; ISO 527
	2.94 GPa	426 ksi	50 mm/min; ASTM D638
Flexural Yield Strength	80.0 MPa	11600 psi	2 mm/min; ISO 178
Flexural Modulus	2.45 GPa	355 ksi	2 mm/min; ISO 178

Mechanical Properties (ISO)	Metric $\frac{J}{m^2}$	English $\frac{ft-lb}{in^2}$	Comments ISO 180/1A
	5.00 kJ/m <sup>2</sup> @Temperature -30.0 °C	2.38 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*4; ISO 180/1A
Charpy Impact, Notched	0.700 J/cm <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	83.0 $\mu\text{m}/\text{m}\cdot\text{°C}$ @Temperature -40.0 - 40.0 °C	46.1 $\mu\text{in}/\text{in}\cdot\text{°F}$ @Temperature -40.0 - 104 °F	ASTM E 831
	83.0 $\mu\text{m}/\text{m}\cdot\text{°C}$ @Temperature -40.0 - 40.0 °C	46.1 $\mu\text{in}/\text{in}\cdot\text{°F}$ @Temperature -40.0 - 104 °F	ISO 11359-2
CTE, linear, Transverse to Flow	77.0 $\mu\text{m}/\text{m}\cdot\text{°C}$ @Temperature -40.0 - 40.0 °C	42.8 $\mu\text{in}/\text{in}\cdot\text{°F}$ @Temperature -40.0 - 104 °F	ASTM E 831
	77.0 $\mu\text{m}/\text{m}\cdot\text{°C}$ @Temperature -40.0 - 40.0 °C	42.8 $\mu\text{in}/\text{in}\cdot\text{°F}$ @Temperature -40.0 - 104 °F	ISO 11359-2
Deflection Temperature at 1.8 MPa (264 psi)	80.0 °C	176 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	78.0 °C @Thickness 3.20 mm	172 °F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	97.0 °C	207 °F	Rate B/50; ASTM D1525
	97.0 °C	207 °F	Rate B/50; ISO 306
	100 °C	212 °F	Rate B/120; ISO 306
UL RTI, Electrical	65.0 °C	149 °F	UL 746B
UL RTI, Mechanical with Impact	65.0 °C	149 °F	UL 746B
UL RTI, Mechanical without Impact	65.0 °C	149 °F	UL 746B
Flammability, UL94	V-1	V-1	UL 94 by SABIC-IP
	@Thickness 1.50 mm	@Thickness 0.0591 in	

Contact Songhan Plastic Technology Co.,Ltd.

Website : 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