

SABIC Innovative Plastics Noryl FN215D PPE+HIPS (Europe-Africa-Middle East)

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

Material Notes:

NORYL FN215 is a Noryl Engineering structural foam grade fulfilling a wide range of application requirement. Moulded with the recommended blowing agents, this material provides all the performance requirements for computer and business machine housings and cabinets. Its excellent load bearing characteristics allow for a maximum degree of integration. Its properties exceed those of many other thermoplastics and make it highly competitive with traditional materials like metal and wood. FN215 meets the requirements for flammability classification 94 V-0/5V under Underwriters' Laboratories test UL 94 Standard. This data was supplied by SABIC-IP for the Europe-Africa-Middle East region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Noryl-FN215D-PPEHIPS-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.880 g/cc	0.880 g/cc	ASTM D 792
Density	0.880 g/cc	0.0318 lb/in ³	ISO 1183
Linear Mold Shrinkage, Flow	0.0060 - 0.0090 cm/cm	0.0060 - 0.0090 in/in	on tensile bar; SABIC Method
Melt Flow	10 g/10 min @Load 2.16 kg, Temperature 280 °C	10 g/10 min @Load 4.76 lb, Temperature 536 °F	[cm ³ /10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	40.0 MPa	5800 psi	50 mm/min; ISO 527
Tensile Strength, Yield	45.0 MPa	6530 psi	50 mm/min; ISO 527
Elongation at Break	40 %	40 %	50 mm/min; ISO 527
Elongation at Yield	3.0 %	3.0 %	50 mm/min; ISO 527
Tensile Modulus	2.10 GPa	305 ksi	1 mm/min; ISO 527
Flexural Yield Strength	60.0 MPa	8700 psi	2 mm/min; ISO 178
Flexural Modulus	2.00 GPa	290 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	10.0 kJ/m ² @Temperature 23.0 °C	4.76 ft-lb/in ² @Temperature 73.4 °F	80*10*4; ISO 180/1A
Charpy Impact Unnotched	1.60 J/cm ² @Temperature 23.0 °C	7.61 ft-lb/in ² @Temperature 73.4 °F	ISO 179/2C

Gardner Impact Mechanical Properties	25.0 - 35.0 J Metric	18.4 - 25.8 ft-lb English	SABIC Method Comments
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Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.0 - 80.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 23.0 - 80.0 $^\circ\text{C}$	38.9 - 44.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 73.4 - 176 $^\circ\text{F}$	ISO 11359-2
Thermal Conductivity	0.210 W/m-K	1.46 BTU-in/hr-ft ² - $^\circ\text{F}$	ISO 8302
Vicat Softening Point	105 $^\circ\text{C}$	221 $^\circ\text{F}$	Rate B/120; ISO 306
UL RTI, Electrical	85.0 $^\circ\text{C}$	185 $^\circ\text{F}$	UL 746B
UL RTI, Mechanical with Impact	85.0 $^\circ\text{C}$	185 $^\circ\text{F}$	UL 746B
UL RTI, Mechanical without Impact	85.0 $^\circ\text{C}$	185 $^\circ\text{F}$	UL 746B
Flammability, UL94	V-1 @Thickness 3.00 mm	V-1 @Thickness 0.118 in	UL 94
	V-0 @Thickness 6.00 mm	V-0 @Thickness 0.236 in	UL 94
	5VA @Thickness 3.90 mm	5VA @Thickness 0.154 in	UL 94

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.2 @Frequency 1.00e+6 Hz	2.2 @Frequency 1.00e+6 Hz	IEC 60250
	0.0039 @Frequency 1.00e+6 Hz	0.0039 @Frequency 1.00e+6 Hz	IEC 60250
	0.0047 @Frequency 50.0 - 60.0 Hz	0.0047 @Frequency 50.0 - 60.0 Hz	IEC 60250

Descriptive Properties	Value	Comments
Weight Reduction, %	23	SABIC Method

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