

SABIC Innovative Plastics Noryl HF180 PPE+HIPS (Europe-Africa-Middle East)

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

Material Notes:

NORYL HF180 is an unfilled, flame retardant material with a Vicat B/120 of 100Å°C according ISO 306. NORYL HF180 is V1 at 2.0 mm according UL94 and halogenThis 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-HF180-PPEHIPS-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Density	1.12 g/cc	0.0405 lb/inÅ³	ISO 1183
Moisture Absorption at Equilibrium	0.060 %	0.060 %	23Å°C / 50% RH; ISO 62
Water Absorption at Saturation	0.42 % @Temperature 23.0 Å°C	0.42 % @Temperature 73.4 Å°F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	on tensile bar; SABIC Method
Melt Flow	20 g/10 min @Load 3.80 kg, Temperature 280 Å°C	20 g/10 min @Load 8.38 lb, Temperature 536 Å°F	[cm³/10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, H358/30	85.0 MPa	12300 psi	ISO 2039-1
Tensile Strength at Break	35.0 MPa	5080 psi	50 mm/min; ISO 527
Tensile Strength, Yield	40.0 MPa	5800 psi	50 mm/min; ISO 527
Elongation at Break	25 %	25 %	50 mm/min; ISO 527
Elongation at Yield	2.2 %	2.2 %	50 mm/min; ISO 527
Tensile Modulus	2.30 GPa	334 ksi	1 mm/min; ISO 527
Flexural Yield Strength	65.0 MPa	9430 psi	2 mm/min; ISO 178
Flexural Modulus	2.10 GPa	305 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	5.00 kJ/mÅ² @Temperature -30.0 Å°C	2.38 ft-lb/inÅ² @Temperature -22.0 Å°F	80*10*4; ISO 180/1A
	10.0 kJ/mÅ² @Temperature 23.0 Å°C	4.76 ft-lb/inÅ² @Temperature 73.4 Å°F	80*10*4; ISO 180/1A

Mechanical Properties	Metric	English	Comments
Charpy Impact, Notched	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	1.00 J/cmÂ² @Temperature 23.0 Â°C	4.76 ft-lb/inÂ² @Temperature 73.4 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Taber Abrasion, mg/1000 Cycles	50 @Load 1.00 kg	50 @Load 2.20 lb	CS-17; SABIC Method

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	80.0 Âµm/m-Â°C @Temperature 23.0 - 80.0 Â°C	44.4 Âµin/in-Â°F @Temperature 73.4 - 176 Â°F	ISO 11359-2
	100 Âµm/m-Â°C @Temperature 23.0 - 80.0 Â°C	55.6 Âµin/in-Â°F @Temperature 73.4 - 176 Â°F	ISO 11359-2
Thermal Conductivity	0.230 W/m-K	1.60 BTU-in/hr-ftÂ²- Â°F	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	90.0 Â°C	194 Â°F	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	75.0 Â°C	167 Â°F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	95.0 Â°C	203 Â°F	Rate B/50; ISO 306
	100 Â°C	212 Â°F	Rate B/120; ISO 306
	105 Â°C	221 Â°F	Rate A/50; ISO 306
UL RTI, Electrical	50.0 Â°C	122 Â°F	UL 746B
UL RTI, Mechanical with Impact	50.0 Â°C	122 Â°F	UL 746B
UL RTI, Mechanical without Impact	50.0 Â°C	122 Â°F	UL 746B
Flammability, UL94	V-1	V-1	UL 94
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Oxygen Index	30 %	30 %	LOI; ISO 4589
Glow Wire Test	960 Â°C	1760 Â°F	Glow Wire Flammability Index; IEC 60695-2-12
	@Thickness 3.20 mm	@Thickness 0.126 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ROA; IEC 60093
Dielectric Constant	2.8	2.8	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	2.8	2.8	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Dielectric Strength	15.0 kV/mm	381 kV/in	in oil; IEC 60243-1
	@Thickness 3.20 mm	@Thickness 0.126 in	
Dissipation Factor	0.0070	0.0070	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.010	0.010	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Comparative Tracking Index	225 V	225 V	IEC 60112

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

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