

SABIC Innovative Plastics LNP Thermocomp FF006 PE

Category : Polymer , Thermoplastic , Polyethylene (PE)

Material Notes:

LNP Thermocomp FF-1006 is a glass filled Polyethylene. 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-LNP-Thermocomp-FF006-PE.php

Physical Properties	Metric	English	Comments
Density	1.18 g/cc	0.0426 lb/in ³	ISO 1183
	1.18 g/cc	0.0426 lb/in ³	ASTM D 792
Moisture Absorption at Equilibrium	0.030 %	0.030 %	23°C / 50% RH; ISO 62
	0.020 %	0.020 %	50% RH; ASTM D 570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.010 - 0.030 cm/cm	0.010 - 0.030 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	44.0 MPa	6380 psi	Type I, 5 mm/min; ASTM D 638
	44.0 MPa	6380 psi	5 mm/min; ISO 527
Tensile Strength, Yield	44.0 MPa	6380 psi	Type I, 5 mm/min; ASTM D 638
	44.0 MPa	6380 psi	5 mm/min; ISO 527
Elongation at Break	1.4 %	1.4 %	5 mm/min; ISO 527
	1.5 %	1.5 %	Type I, 5 mm/min; ASTM D 638
	2.1 %	2.1 %	Flexural Strain, 2 mm/min; ISO 178
Elongation at Yield	1.4 %	1.4 %	5 mm/min; ISO 527
	1.5 %	1.5 %	Type I, 5 mm/min; ASTM D 638
Tensile Modulus	4.58 GPa	664 ksi	1 mm/min; ISO 527
	6.66 GPa	966 ksi	50 mm/min; ASTM D 638
	47.0 MPa	6820 psi	1.3 mm/min, 50 mm span; ASTM D

Flexural Strength Mechanical Properties	Metric	English	790 Comments
Flexural Yield Strength	62.0 MPa	8990 psi	1.3 mm/min, 50 mm span; ASTM D 790
	64.0 MPa	9280 psi	2 mm/min; ISO 178
Flexural Modulus	4.21 GPa	611 ksi	1.3 mm/min, 50 mm span; ASTM D 790
	4.94 GPa	716 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.550 J/cm	1.03 ft-lb/in	ASTM D 256
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Unnotched	1.75 J/cm	3.28 ft-lb/in	ASTM D 4812
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Notched (ISO)	4.00 kJ/m ²	1.90 ft-lb/in ²	80*10*4; ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Unnotched (ISO)	12.0 kJ/m ²	5.71 ft-lb/in ²	80*10*4; ISO 180/1U
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	32.2 µm/m-°C	17.9 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 60.0 °C	@Temperature 73.4 - 140 °F	
	32.2 µm/m-°C	17.9 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
CTE, linear, Transverse to Flow	125 µm/m-°C	69.4 µin/in-°F	ISO 11359-2
	@Temperature 23.0 - 60.0 °C	@Temperature 73.4 - 140 °F	
	125 µm/m-°C	69.4 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
Deflection Temperature at 0.46 MPa (66 psi)	129 °C	264 °F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	130 °C	266 °F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D 648
Deflection Temperature at 1.8 MPa (264 psi)	111 °C	232 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	115 °C	239 °F	

Thermal Properties

Metric
@ Thickness 3.20 mm

English
@ Thickness 0.126 in

unannealed; ASTM D 648
Comments

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