

SABIC Innovative Plastics LNP Thermocomp 2C004

Category : Polymer , Thermoplastic , Fluoropolymer , ETFE/ECTFE

Material Notes:

LNP THERMOCOMP* 2C004 is a compound based on Ethylene Tetrafluoroethylene Copolymer resin containing Carbon Fiber. Added features of this material include: Electrically Conductive. 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-2C004.php

Physical Properties	Metric	English	Comments
Density	1.74 g/cc	0.0629 lb/in ³	ISO 1183
	1.75 g/cc	0.0632 lb/in ³	ASTM D 792
Moisture Absorption at Equilibrium	0.12 %	0.12 %	23 ^o C / 50% RH; ISO 62
	0.090 % @Time 86400 sec	0.090 % @Time 24.0 hour	50% RH; ASTM D 570
Linear Mold Shrinkage, Flow	0.0065 cm/cm	0.0065 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.0070 cm/cm	0.0070 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.022 cm/cm	0.022 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	
	0.0222 cm/cm	0.0222 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	59.0 MPa	8560 psi	ISO 527
	60.0 MPa	8700 psi	ASTM D 638
Elongation at Break	2.0 %	2.0 %	ISO 527
	2.5 %	2.5 %	ASTM D 638
Tensile Modulus	12.18 GPa	1767 ksi	1 mm/min; ISO 527
	13.3 GPa	1930 ksi	50 mm/min; ASTM D 638
Flexural Strength	106 MPa	15400 psi	ASTM D 790
	120 MPa	17400 psi	ISO 178

Mechanical Properties	Metric	English	Comments
Flexural Modulus	10.54 GPa	1530 ksi	ASTM D 790
	10.55 GPa	1530 ksi	ISO 178
Izod Impact, Notched	1.81 J/cm @Temperature 23.0 Â°C	3.39 ft-lb/in @Temperature 73.4 Â°F	ASTM D 256
Izod Impact, Unnotched	5.87 J/cm @Temperature 23.0 Â°C	11.0 ft-lb/in @Temperature 73.4 Â°F	ASTM D 4812
Izod Impact, Notched (ISO)	15.0 kJ/mÂ² @Temperature 23.0 Â°C	7.14 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	36.0 kJ/mÂ² @Temperature 23.0 Â°C	17.1 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1U
Impact Test	6.00 J	4.43 ft-lb	Multiaxial Impact; ISO 6603
	14.0 J @Temperature 23.0 Â°C	10.3 ft-lb @Temperature 73.4 Â°F	Instrumented Impact Energy @ peak; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	25.2 Âµm/m-Â°C	14.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	25.6 Âµm/m-Â°C	14.2 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	54.0 Âµm/m-Â°C	30.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	54.0 Âµm/m-Â°C	30.0 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)	246 Â°C	475 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	252 Â°C @Thickness 3.20 mm	486 Â°F @Thickness 0.126 in	

Thermal Properties <small>Deflection Temperature at 1.8 MPa (104 psi)</small>	Metric <small>187 Â°C</small>	English <small>360 Â°F</small>	Comments <small>Class: 20, 10+4 sp=64mm; ISO 75/Af</small>
	208 Â°C @Thickness 3.20 mm	406 Â°F @Thickness 0.126 in	unannealed; ASTM D 648

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