LNP™ THERMOCOMP™ Compound LC003E - Asia

PEEK-CF15 Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP THERMOCOMP LC003E compound is based on Polyetheretherketone (PEEK) resin containing 15% carbon fiber. Added features of this grade include: Easy Molding, Electrically Conductive

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	**0.3**	%	ISO 294-4, 2577
Molding shrinkage, normal	**0.5**	%	ISO 294-4, 2577
ASTM Data			
Mold Shrinkage, MD	**0.25**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.55**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**10500**	MPa	ISO 527
Stress at break	**163**	MPa	ISO 527
Strain at break	**1.8**	%	ISO 527
Flexural modulus	**9850**	MPa	ISO 178
Flexural strength	**263**	MPa	ISO 178
Izod impact strength, +23°C, 4mm	**29**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	**4**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**11510**	MPa	ASTM D 638
Tensile Strength at Break	**153**	MPa	ASTM D 638
Elongation at Break	**1.8**	%	ASTM D 638
Flexural Modulus	**9510**	MPa	ASTM D 790
Flexural Strength	**259**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**37**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**400**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**298**	°C	ISO 75-1/-2
ASTM Data			
DTUL @ 264 psi	**270**	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Surface Resistivity	**1E7**	Ohm	ASTM D 257

Other properties	Value	Unit	Test Standard
Humidity absorption	**0.13**	%	Sim. to ISO 62
Density	**1330**	kg/m³	ISO 1183
Water Absorption, 24hr	**0.07**	%	ASTM D 570
Density	**1330**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120 - 150**	°C	-
Pre-drying - Time	**4**	h	-
Processing humidity	**≤0.1**	%	-
Melt temperature	**380 - 390**	°C	-
Mold temperature	**140 - 165**	°C	-
Zone 1	**350 - 360**	°C	-
Zone 2	**365 - 375**	°C	-
Zone 3	**380 - 395**	°C	-
Screw speed	**60 - 100**	rpm	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing
Injection Molding

Regional Availability
Asia Pacific

Special Characteristics
Increased electrical conductivity