

LNP™ THERMOCOMP™ Compound LFW55EX1

PEEK-(GF+MX)50

Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP THERMOCOMP LFW55EX1 compound is based on Polyetheretherketone (PEEK) resin containing 25% glass fiber and 25% mineral. Added features of this material include: Easy Molding, Dimensional Stability.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	0.0035	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.008	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	16000	MPa	ISO 527
Stress at break	147	MPa	ISO 527
Strain at break	1.9	%	ISO 527
Flexural modulus, 23°C	14000	MPa	ISO 178
Flexural strength	215	MPa	ISO 178
Charpy impact strength, +23°C	40	kJ/m ²	ISO 179/1eU
Izod impact strength, +23°C	34	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	6	kJ/m ²	ISO 180/1A

ASTM Data	Value	Unit	Test Standard
Tensile Modulus	16400	MPa	ASTM D 638
Tensile Strength at Break	166	MPa	ASTM D 638
Elongation at Break	1.65	%	ASTM D 638
Flexural Modulus	14150	MPa	ASTM D 790
Flexural Strength	218	MPa	ASTM D 790
Izod Impact notched, 1/8 in	45	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	483	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	320	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	330	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	17	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	34	E-6/K	ISO 11359-1/-2
ASTM Data			
DTUL @ 66 psi	330	°C	ASTM D 648
DTUL @ 264 psi	320	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Humidity absorption	0.01	%	Sim. to ISO 62
Density	1810	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120 - 150	°C	-
Pre-drying - Time	3 - 5	h	-
Melt temperature	380 - 400	°C	-
Mold temperature	170 - 200	°C	-
Zone 1	290 - 300	°C	-
Zone 2	360 - 370	°C	-
Zone 3	370 - 380	°C	-
Nozzle temperature	380 - 400	°C	-

Characteristics**Processing**

Injection Molding

Regional Availability

North America, Europe, Asia Pacific, South and Central America

Applications

IT / Business Machine, Electrical and Electronical