LNP™ THERMOCOMP™ Compound OFM46

PPS-GF50 — Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP THERMOCOMP OFM46 compound is based on Polyphenylene Sulfide (PPS) containing 50% glass fiber and minerals. Added features of this material include: high stiffness and strength, excellent dimensional stability and warpage control, good flame and chemical resistance, low coefficient of thermal expansion and moisture absorption.

UL Yellow Card Link: E207780-104610218

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	**32**	g/10min	ASTM D 1238
Temperature	**315**	°C	-
Load	**5**	kg	-
Mold Shrinkage, MD	**0.0025**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.004**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**15100**	MPa	ISO 527
Stress at break	**160**	MPa	ISO 527
Strain at break	**1.8**	%	ISO 527
Flexural modulus, 23°C	**13300**	MPa	ISO 178
Flexural strength	**230**	MPa	ISO 178
Charpy impact strength, +23°C	**35**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**10**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**35**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**9.5**	kJ/m²	ISO 180/1A
Izod notched impact strength	**7.2**	kJ/m²	ISO 180/1A
Temperature	**-20**	°C	-
ASTM Data			
Tensile Modulus	**15000**	MPa	ASTM D 638
Tensile Strength at Break	**160**	MPa	ASTM D 638
Elongation at Break	**1.8**	%	ASTM D 638
Flexural Modulus	**13200**	MPa	ASTM D 790
Flexural Strength	**230**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**90**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**512**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**265**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**278**	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	**15**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**30**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-0**	class	IEC 60695-11-10
Thickness tested	**0.8**	mm	-
Yellow Card available	**yes**	-	-
ASTM Data			
UL 94 Flame rating	**V-0**	-	UL 94
Thickness tested	**0.8**	mm	-
Coefficient of Thermal Expansion, MD	**15**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**34**	E-6/K	ASTM D 696
DTUL @ 66 psi	**278**	°C	ASTM D 648
DTUL @ 264 psi	**263**	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Density	**1770**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120 - 140**	°C	-
Pre-drying - Time	**3 - 4**	h	-
Melt temperature	**310 - 330**	°C	-
Mold temperature	**135 - 160**	°C	-
Zone 1	**290 - 310**	°C	-
Zone 2	**300 - 320**	°C	-
Zone 3	**310 - 330**	°C	-
Nozzle temperature	**310 - 330**	°C	-
Screw speed	**50 - 100**	rpm	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing
Injection Molding

Chemical Resistance
General Chemical Resistance

Special Characteristics
Flame retardant

Applications
Automotive

Features
Low Warpage, Thermal Stability

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