

LNPTTM THERMOCOMPTM Compound OFM76EXP

DESCRIPTION

LNP THERMOCOMP OFM76EXP compound is a 65% glass fiber and mineral reinforced polyphenylene sulfide. Added feature of this material include: high heat and tracking resistance, good insulation properties and flame resistance, excellent dimensional stability with low coefficient of thermal expansion and moisture absorption.

GENERAL INFORMATION	
Features	Flame Retardant, Low Moisture Absorption, Dimensional stability, Thermally conductive/Electrically isolative, No PFAS intentionally added
Fillers	Mineral, Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Energy Management
Hydrocarbon and Energy	Energy Storage
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20260807

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	125	MPa	ASTM D638
Tensile Strain, Break			
Type I, 5 mm/min	1.45	%	ASTM D638
5 mm/min	1.3	%	ISO 527
Tensile Modulus, 5 mm/min	15800	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	196	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	15400	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	123	MPa	ISO 527
Tensile Modulus, 1 mm/min	15600	MPa	ISO 527
Flexural Strength, 2 mm/min	189	MPa	ISO 178
Flexural Modulus, 2 mm/min	15200	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod impact, notched			
23°C	86	J/m	ASTM D256
80°10°4 +23°C	8.7	kJ/m ²	ISO 180/1A
80°10°4 0°C	8.2	kJ/m ²	ISO 180/1A
Izod Impact, Unnotched			
23°C	310	J/m	ASTM D4812
80°10°4 +23°C	24	kJ/m ²	ISO 180/1U
80°10°4 0°C	19	kJ/m ²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80°10°4 sp=62mm	8.4	kJ/m ²	ISO 179/1eA

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	25	kJ/m²	ISO 179/1eU
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	273	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	262	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	273	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	260	°C	ISO 75/Af
CTE			
-40°C to 90°C, flow	1.50E-05	1/°C	ASTM E831
-40°C to 90°C, xflow	3.50E-05	1/°C	ASTM E831
-40°C to 40°C, flow	1.50E-05	1/°C	ISO 11359-2
-40°C to 40°C, xflow	2.90E-05	1/°C	ISO 11359-2
-40°C to 90°C, flow	1.60E-05	1/°C	ISO 11359-2
-40°C to 90°C, xflow	3.40E-05	1/°C	ISO 11359-2
-40°C to 125°C, flow	1.60E-05	1/°C	ISO 11359-2
-40°C to 125°C, xflow	4.20E-05	1/°C	ISO 11359-2
Thermal Conductivity through-plane, 10*10*3mm sample	0.8	W/m-K	ASTM E1461-07
Thermal Conductivity in-plane, 25*0.4mm disc	1.5	W/m-K	ASTM E1461-07
Relative Temp Index, Elec ⁽²⁾	130	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	130	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	130	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.78	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.02	%	ISO 62-1
Moisture Absorption, (23°C/50% RH/24hrs)	0.01	%	ISO 62-4
Mold Shrinkage, flow ⁽³⁾	0.2 – 0.3	%	SABIC method
Mold Shrinkage, xflow ⁽³⁾	0.2 – 0.4	%	SABIC method
ELECTRICAL ⁽¹⁾			
Surface Resistivity	>1.E+15	Ω	ASTM D257
Volume Resistivity	>1.E+15	Ω.cm	ASTM D257
Comparative Tracking Index (UL) {PLC} ⁽²⁾	0	PLC Code	UL 746A
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E207780-10307084	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120 – 140	°C	
Drying Time	4 – 6	Hrs	
Melt Temperature	290 – 320	°C	
Nozzle Temperature	300 – 330	°C	
Front - Zone 3 Temperature	290 – 320	°C	
Middle - Zone 2 Temperature	290 – 320	°C	
Rear - Zone 1 Temperature	280 – 310	°C	
Mold Temperature	125 – 155	°C	
Back Pressure	0.5 – 1.0	MPa	
Screw Speed	50 – 100	rpm	



- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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