

Product Texts

LNP THERMOCOMP UX04509H compound is based on Polyphthalamide (PPA) resin containing 40% carbon fiber. Added features of this grade include: Electrically Conductive, Healthcare.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	0.0035	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.0065	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	34400	MPa	ISO 527
Yield stress	293	MPa	ISO 527
Yield strain	1.1	%	ISO 527
Stress at break	293	MPa	ISO 527
Strain at break	1.1	%	ISO 527
Flexural modulus, 23°C	28800	MPa	ISO 178
Flexural strength	425	MPa	ISO 178
Izod impact strength, +23°C	47	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	7	kJ/m ²	ISO 180/1A

Mechanical properties	Value	Unit	Test Standard
ASTM Data			
Tensile Modulus	36820	MPa	ASTM D 638
Tensile Strength at Yield	307	MPa	ASTM D 638
Tensile Strength at Break	307	MPa	ASTM D 638
Elongation at Yield	1.2	%	ASTM D 638
Elongation at Break	1.2	%	ASTM D 638
Flexural Modulus	29300	MPa	ASTM D 790
Izod Impact notched, 1/8 in	67	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	680	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	283	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	301	°C	ISO 75-1/-2
ASTM Data			
Coefficient of Thermal Expansion, MD	27	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	28	E-6/K	ASTM D 696
DTUL @ 66 psi	303	°C	ASTM D 648
DTUL @ 264 psi	289	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Humidity absorption	0.29	%	Sim. to ISO 62
Density	1360	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.15	%	-
Melt temperature	315 - 330	°C	-
Mold temperature	150 - 170	°C	-
Zone 1	310 - 320	°C	-
Zone 2	315 - 325	°C	-
Zone 3	325 - 330	°C	-
Screw speed	30 - 60	rpm	-
Back pressure	0.2 - 0.3	MPa	-

Characteristics

Processing

Injection Molding

Special Characteristics

Increased electrical conductivity, Heat stabilized or stable to heat

Applications

Medical, Packaging

Regional Availability

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