LNP™ THERMOCOMP™ COMPOUND LF002EXD-WT02005

DESCRIPTION

LNP THERMOCOMP LF002EXD-WT02005 compound is based on Polyetheretherketone (PEEK) resin containing 10% glass fiber. Added features of this grade include Custom Color and Easy Molding.

GENERAL INFORMATION	
Features	Good Processability, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyetheretherketone (PEEK)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Commercial Appliance
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20240426

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break, 5 mm/min	97	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	8700	MPa	ISO 527
Flexural Strength, 2 mm/min	169	MPa	ISO 178
Flexural Modulus, 2 mm/min	7700	MPa	ISO 178
Tensile Stress, brk, Type I, 5 mm/min	99	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D638
Tensile Modulus, 5 mm/min	8700	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	161	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7600	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	26	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	33	kJ/m²	ISO 179/1eU
Izod Impact, unnotched, 23°C	39	J/m	ASTM D4812
Izod Impact, notched, 23°C	378	J/m	ASTM D256
THERMAL [1]			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	>300	°C	ISO 75/Bf
HDT, 1.8 MPa, 3.2mm, unannealed	190	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	>300	°C	ISO 306
Vicat Softening Temp, Rate B/120	>300	°C	ISO 306
CTE, 23°C to 60°C, flow	3.0E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	4.1E-05	1/°C	ISO 11359-2
PHYSICAL (1)			
Density	1.86	g/cm³	ISO 1183
Melt Volume Rate, MVR at 400°C/10.0 kg	50	cm³/10 min	ISO 1133
Mold Shrinkage, flow, 24 hrs (2)	0.5 – 0.6	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (2)	0.5 – 0.6	%	ISO 294
Moisture Absorption (23°C / 50% RH)	0.1 – 0.2	%	ISO 62
Water Absorption, (23°C/saturated)	0.2 – 0.23	%	ISO 62-1
Moisture Absorption, (23°C/50% RH/24 hrs)	<0.1	%	ASTM D570
Water Absorption, (23°C/24hrs)	0.1	%	ASTM D570
INJECTION MOLDING (3)			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.1	%	
Hopper Temperature	40 – 60	°C	
Melt Temperature	380 – 390	°C	
Rear - Zone 1 Temperature	350 – 360	°C	
Middle - Zone 2 Temperature	365 – 375	°C	
Front - Zone 3 Temperature	380 – 395	°C	
Nozzle Temperature	380 – 395	°C	
Mold Temperature	140 – 165	°C	
Back Pressure	0.3 – 0.7	MPa	

(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) 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.

(3) 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.

DISCLAIMER