LNP™ THERMOCOMP™ Compound JF004L

JF-1004 LE

DESCRIPTION

LNP THERMOCOMP JF004L compound is based on Polyethersulfone (PES) resin containing 20% glass fiber. Added features of this grade include: Low Extractables

GENERAL INFORMATION	
Features	Food contact, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyethersulfone (PESU)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Packaging	Industrial Packaging, Food & Beverage

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	98	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	98	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.7	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.9	%	ASTM D638
Tensile Modulus, 50 mm/min	6360	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	152	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	152	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6300	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	94	MPa	ISO 527
Tensile Stress, break, 5 mm/min	93	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.1	%	ISO 527
Tensile Strain, break, 5 mm/min	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	6640	MPa	ISO 527
Flexural Stress	149	MPa	ISO 178
Flexural Stress, break, 2 mm/min	148	MPa	ISO 178
Flexural Modulus, 2 mm/min	6300	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	563	J/m	ASTM D4812
Izod Impact, notched, 23°C	50	J/m	ASTM D256
Multiaxial Impact	2	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	11	J	ASTM D3763

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 +23°C	32	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	216	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	211	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	216	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	210	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.54	-	ASTM D792
Density	1.53	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.37	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.3 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.5 – 0.7	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.55	%	ISO 62
INJECTION MOLDING [3]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	355 – 370	°C	
Front - Zone 3 Temperature	370 – 380	°C	
Middle - Zone 2 Temperature	360 – 370	°C	
Rear - Zone 1 Temperature	345 – 355	°C	
Mold Temperature	140 – 150	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 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) 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.

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