LNP™ THERMOCOMP™ COMPOUND 2Z004

FP-EF-1004 M

DESCRIPTION

LNP THERMOCOMP 2Z004 compound is based on Ethylene Tetrafluoroethylene (ETFE) resin containing 20% milled glass.

GENERAL INFORMATION	
Features	Low Warpage, Dimensional stability, Impact resistant
Fillers	Milled Glass Fiber
Polymer Types	Ethylene Tetrafluoroethylene Copolymer (ETFE)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Energy Management, Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	29	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	21	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	23	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	53	%	ASTM D638
Tensile Modulus, 5 mm/min	1700	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	1280	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	27	MPa	ISO 527
Tensile Stress, break, 5 mm/min	22	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	22	%	ISO 527
Tensile Strain, break, 5 mm/min	78	%	ISO 527
Tensile Modulus, 1 mm/min	1510	MPa	ISO 527
Flexural Strength, 2 mm/min	24	MPa	ISO 178
Flexural Modulus, 2 mm/min	1210	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1340	J/m	ASTM D4812
Izod Impact, notched, 23°C	615	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	26	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	119	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	37	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	88	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	52	°C	ASTM D648
CTE, -30°C to 30°C, flow	8.E-05	1/°C	ASTM D696

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, xflow	8.7E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	89	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	50	°C	ISO 75/Af
PHYSICAL (1)			
Specific Gravity	1.84	-	ASTM D792
Density	1.83	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.01	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	1 – 2	%	ASTM D955
INJECTION MOLDING (3)			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	315	°C	
Front - Zone 3 Temperature	325 – 340	°C	
Middle - Zone 2 Temperature	300 – 325	°C	
Rear - Zone 1 Temperature	280 – 300	°C	
Mold Temperature	90 – 120	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	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.

DISCLAIMER