LNP™ THERMOCOMP™ COMPOUND 2F004

FP-EF-1004

DESCRIPTION

LNP FP-EF-1004 is a fluoropolymer compound based on ETFE resin containing 20% Glass Fiber.

TYPICAL PROPERTY VALUES

Revision 20191218

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	54	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	49	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	9.4	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	10.7	%	ASTM D 638
Tensile Modulus, 5 mm/min	4860	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	4020	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	52	MPa	ISO 527
Tensile Stress, break, 5 mm/min	51	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	9.1	%	ISO 527
Tensile Strain, break, 5 mm/min	9.8	%	ISO 527
Tensile Modulus, 1 mm/min	4400	MPa	ISO 527
Flexural Stress	72	MPa	ISO 178
Flexural Modulus, 2 mm/min	3780	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1460	J/m	ASTM D 4812
Izod Impact, notched, 23°C	551	J/m	ASTM D 256
Multiaxial Impact	10	J	ISO 6603
Instrumented Impact Total Energy, 23°C	21	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	96	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	45	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	240	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	132	°C	ASTM D 648
CTE, -30°C to 30°C, flow	5.9E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	7.6E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	219	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	112	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.85	-	ASTM D 792
Density	1.84	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.02	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	2 – 4	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.01	%	ISO 62

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
INJECTION MOLDING			
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	

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