LNP™ THERMOCOMP™ COMPOUND 2F005

FP-EF-1005

DESCRIPTION

LNP THERMOCOMP 2F005 is a fluoropolymer compound based on ETFE containing 25% Glass Fiber.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	61	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	59	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	7	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	8.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	6190	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	5480	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	61	MPa	ISO 527
Tensile Stress, break, 5 mm/min	60	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	6.6	%	ISO 527
Tensile Strain, break, 5 mm/min	7	%	ISO 527
Tensile Modulus, 1 mm/min	5670	MPa	ISO 527
Flexural Stress	87	MPa	ISO 178
Flexural Modulus, 2 mm/min	5200	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1600	J/m	ASTM D 4812
Izod Impact, notched, 23°C	529	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	90	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	44	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	248	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	190	°C	ASTM D 648
CTE, -30°C to 30°C, flow	6.4E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	6.1E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	232	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	132	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.87	-	ASTM D 792
Density	1.87	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.01	%	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)	0.02	%	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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