LNP™ THERMOCOMP™ COMPOUND IF00C

IF-100-12

DESCRIPTION

LNP THERMOCOMP IF00C is a compound based on Nylon 6/12 resin containing 60% Glass Fiber.

TYPICAL PROPERTY VALUES

Revision 20191213

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	207	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2	%	ASTM D 638
Tensile Modulus, 5 mm/min	21440	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	311	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	18500	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	202	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	20070	MPa	ISO 527
Flexural Stress	306	MPa	ISO 178
Flexural Modulus, 2 mm/min	18240	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1050	J/m	ASTM D 4812
Izod Impact, notched, 23°C	137	J/m	ASTM D 256
Multiaxial Impact	3	J	ISO 6603
Instrumented Impact Total Energy, 23°C	10	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	635	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	13	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	215	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	205	°C	ASTM D 648
CTE, -30°C to 30°C, flow	2.2E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	5.3E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	214	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	198	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.68	-	ASTM D 792
Density	1.67	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 – 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6 – 0.8	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.13	%	ISO 62
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Maximum Moisture Content	0.12 – 0.2	%	
Melt Temperature	270 – 275	°C	
Front - Zone 3 Temperature	270 – 280	°C	
Middle - Zone 2 Temperature	260 – 270	°C	
Rear - Zone 1 Temperature	255 – 265	°C	
Mold Temperature	65 – 95	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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