LNP™ THERMOCOMP™ COMPOUND IF003

IF-1003

DESCRIPTION

LNP THERMOCOMP* IF003 is a compound based on Nylon 6/12 resin containing 15% Glass Fiber.

TYPICAL PROPERTY VALUES

Revision 20191218

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	100	MPa	ASTM D 638
Tensile Strain, break	2.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	5530	MPa	ASTM D 638
Flexural Stress	163	MPa	ASTM D 790
Flexural Modulus	5210	MPa	ASTM D 790
Tensile Stress, break	99	MPa	ISO 527
Tensile Strain, break	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	5430	MPa	ISO 527
Flexural Stress	156	MPa	ISO 178
Flexural Modulus	4590	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	240	J/m	ASTM D 4812
Izod Impact, notched, 23°C	42	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	6	J	ASTM D 3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	22	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	191	°C	ASTM D 648
CTE, -40°C to 40°C, flow	4.51E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.04E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	4.52E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.05E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	181	°C	ISO 75/Af
PHYSICAL			
Density	1.18	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.22	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.4 – 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 – 1.2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.4 – 0.6	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1 – 1.1	%	ISO 294
Density	1.17	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.26	%	ISO 62
INJECTION MOLDING			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Temperature	80	°C	
Drying Time	4	hrs	
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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