LNP™ THERMOCOMP™ COMPOUND RF004XXD

RF-1004

DESCRIPTION

LNP THERMOCOMP* RF004XXD is a compound based on Nylon 66 resin containing 20% Glass Fiber.

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	156	MPa	ASTM D 638
Tensile Strain, break	3.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	7170	MPa	ASTM D 638
Flexural Stress	230	MPa	ASTM D 790
Flexural Modulus	5860	MPa	ASTM D 790
Tensile Stress, break	159	MPa	ISO 527
Tensile Strain, break	3.7	%	ISO 527
Tensile Modulus, 1 mm/min	7300	MPa	ISO 527
Flexural Stress	241	MPa	ISO 178
Flexural Modulus	7000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	833	J/m	ASTM D 4812
Izod Impact, notched, 23°C	101	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	11	J	ASTM D 3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	56	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	260	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	247	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.78E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.92E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	3.88E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.94E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	221	°C	ISO 75/Af
PHYSICAL			
Density	1.295	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.8	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.47	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.24	%	ISO 294
Wear Factor Washer	80	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.68	-	ASTM D 3702 Modified: Manual

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Static COF	0.52	-	ASTM D 3702 Modified: Manual
Density	1.29	g/cm³	ISO 1183
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	95 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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