LNP™ THERMOCOMP™ Compound RX12402

RX12402

DESCRIPTION

LNP THERMOCOMP RX12402 compound is based on Nylon 6/6 resin containing 60% glass fiber. Added features of this grade include: Good Flow.

GENERAL INFORMATION	
Features	High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Exteriors
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break, 5 mm/min	240	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	20570	MPa	ISO 527
Flexural Stress	357	MPa	ISO 178
Flexural Modulus, 2 mm/min	18120	MPa	ISO 178
Tensile Stress, brk, Type I, 5 mm/min	241	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D638
Tensile Modulus, 5 mm/min	21840	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	371	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	17900	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	13	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	75	kJ/m²	ISO 180/1U
Multiaxial Impact	4	J	ISO 6603
Izod Impact, notched, 23°C	153	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1250	J/m	ASTM D4812
Instrumented Dart Impact Total Energy, 23°C	10	J	ASTM D3763
THERMAL [1]			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	250	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	237	°C	ISO 75/Af
HDT, 0.45 MPa, 3.2 mm, unannealed	253	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	240	°C	ASTM D648

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, flow	1.0E-06	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.90E-06	1/°C	ASTM D696
PHYSICAL [1]			
Moisture Absorption (23°C / 50% RH)	0.73	%	ISO 62
Specific Gravity	1.7	-	ASTM D792
Density	1.72	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.48	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.3 – 0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.9 – 2	%	ASTM D955
INJECTION MOLDING [3]			
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	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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