LNP™ THERMOCOMP™ Compound MX06402H

MF-1004 HS LE

DESCRIPTION

LNP THERMOCOMP MX06402H compound is based on Polypropylene (PP) resin containing 20% glass fiber. Added features of this grade include: Heat Stabilized, Low Extractables, Healthcare.

GENERAL INFORMATION	
Features	Heat Stabilized, Food contact, Healthcare/Formula lock, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polypropylene, Unspecified (PP, Unspecified)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging, Food & Beverage

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	38	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	34	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	3.4	%	ASTM D638
Tensile Modulus, 50 mm/min	6390	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	66	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	4700	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	37	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.7	%	ISO 527
Tensile Strain, break, 5 mm/min	2.7	%	ISO 527
Tensile Modulus, 1 mm/min	5350	MPa	ISO 527
Flexural Stress	65	MPa	ISO 178
Flexural Modulus, 2 mm/min	4690	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	195	J/m	ASTM D4812
Izod Impact, notched, 23°C	48	J/m	ASTM D256
Multiaxial Impact	2	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	12	J	ASTM D3763

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 +23°C	13	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	143	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	103	°C	ASTM D648
CTE, -30°C to 30°C, flow	4.5E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.01E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	134	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	95	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.06	-	ASTM D792
Mold Shrinkage, flow, 24 hrs [2]	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1 – 3	%	ASTM D955
Density	1.05	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.01	%	ISO 62
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	225 – 250	°C	
Front - Zone 3 Temperature	240 – 250	°C	
Middle - Zone 2 Temperature	215 – 225	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	30 – 50	°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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