

LNPTM THERMOCOMPTM COMPOUND DF006HL

DF-1006 LE

DESCRIPTION

LNP THERMOCOMP DF006HL compound is based on Polycarbonate (PC) resin containing 30% glass fiber. Added features of this grade include: Low Extractables, Healthcare.

GENERAL INFORMATION

Features	Food contact, Healthcare/Formula lock, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY

Building and Construction
Consumer
Hygiene and Healthcare
Packaging

SUB INDUSTRY

Water Management
Home Appliances
Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
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	115	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	114	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.8	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	3.2	%	ASTM D638
Tensile Modulus, 5 mm/min	8340	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	183	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	180	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7500	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	110	MPa	ISO 527
Tensile Stress, break, 5 mm/min	110	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.8	%	ISO 527
Tensile Strain, break, 5 mm/min	3	%	ISO 527
Tensile Modulus, 1 mm/min	7800	MPa	ISO 527
Flexural Strength, 2 mm/min	174	MPa	ISO 178
Flexural Modulus, 2 mm/min	7200	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	830	J/m	ASTM D4812
Izod Impact, notched, 23°C	167	J/m	ASTM D256
Multiaxial Impact	8	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	27	J	ASTM D3763

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CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 +23°C	52	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	147	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	144	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.2E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.9E-05	1/°C	ASTM E831
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	147	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	143	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.43	-	ASTM D792
Density	1.43	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.12	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.1 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.5 – 0.8	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
INJECTION MOLDING ⁽³⁾			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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