

LNP* Thermocomp* Compound DF002H

Americas: COMMERCIAL

Also known as: LNP* Thermocomp* Compound DF-1002 HC

Product reorder name: DF002H

LNP THERMOCOMP* DF002H is a compound based on Polycarbonate resin containing Glass Fiber. Characteristic of this grade is Healthcare.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	820	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	760	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	43300	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1400	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	41900	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	80	MPa	ISO 527
Tensile Stress, break, 5 mm/min	74	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.8	%	ISO 527
Tensile Strain, break, 5 mm/min	5.7	%	ISO 527
Tensile Modulus, 1 mm/min	4170	MPa	ISO 527
Flexural Modulus, 2 mm/min	3950	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	90	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	8	cm-kgf/cm	ASTM D 256
Multiaxial Impact	107	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	187	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80°*10*4 +23°C	54	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°*10*4 +23°C	8	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	146	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	141	°C	ASTM D 648



(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23±176.C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) 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.

Source GMD, last updated:

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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -30°C to 30°C, flow	4.55E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	5.3E+01	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	54	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	8	°C	ISO 75/Af
PHYSICAL			
Density	1.29	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.14	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.4 - 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.6 - 0.8	%	ASTM D 955
Density	1.29	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
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



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