

LNP* Thermocomp* Compound TF008

Americas: COMMERCIAL

Also known as: LNP* Thermocomp* Compound TF-1008

Product reorder name: TF008

LNP* Thermocomp* TF008 is a compound based on Polyurethane containing Glass Fiber.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	880	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	860	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	18.7	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	20	%	ASTM D 638
Tensile Modulus, 5 mm/min	31000	kgf/cm ²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	32100	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	87	MPa	ISO 527
Tensile Stress, break, 5 mm/min	86	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	18	%	ISO 527
Tensile Strain, break, 5 mm/min	19	%	ISO 527
Tensile Modulus, 1 mm/min	3270	MPa	ISO 527
Flexural Stress	70	MPa	ISO 178
Flexural Modulus, 2 mm/min	3040	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	154	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	68	cm-kgf/cm	ASTM D 256
Multiaxial Impact	117	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	265	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	175	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	48	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	175	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	114	°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	8.4E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.45E-04	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	172	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	110	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.56	-	ASTM D 792
Density	1.56	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.1 - 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.5 - 0.8	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.39	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	95 - 105	°C
Drying Time	2	hrs
Maximum Moisture Content	0.03	%
Melt Temperature	210	°C
Nozzle Temperature	205 - 225	°C
Front - Zone 3 Temperature	200 - 220	°C
Middle - Zone 2 Temperature	195 - 215	°C
Rear - Zone 1 Temperature	195 - 210	°C
Mold Temperature	15 - 45	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm
Shot to Cylinder Size	40 - 80	%

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