



LNP™ THERMOCOMP™ Compound TF002

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound TF-1002

Product reorder name: TF002

LNP THERMOCOMP TF002 is a compound based on Polyurethane resin containing 10% Glass Fiber.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	420	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	380	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	32.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	53	%	ASTM D 638
Tensile Modulus, 50 mm/min	14900	kgf/cm ²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	9200	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	43	MPa	ISO 527
Tensile Stress, break, 5 mm/min	40	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	33.6	%	ISO 527
Tensile Strain, break, 5 mm/min	55.4	%	ISO 527
Tensile Modulus, 1 mm/min	1260	MPa	ISO 527
Flexural Stress	26	MPa	ISO 178
Flexural Modulus, 2 mm/min	950	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	125	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	34	cm-kgf/cm	ASTM D 256
Multiaxial Impact	244	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	295	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	129	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	31	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	152	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	67	°C	ASTM D 648



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -30°C to 30°C, flow	8.93E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.72E+02	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	148	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	61	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.31	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.4	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.6 - 0.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.7 - 0.9	%	ASTM D 955
Density	1.31	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.61	%	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	%