LNP™ THERMOCOMP™ Compound LF005

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound LF-1005
Product reorder name: LF005

LNP THERMOCOMP LF005 is a compound based on Polyetheretherketone resin containing 25% Glass Fiber.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	1590	kgf/cm²	ASTM D 638
Tensile Stress, break	1590	kgf/cm²	ASTM D 638
Tensile Strain, yield	2.7	%	ASTM D 638
Tensile Strain, break	2.7	%	ASTM D 638
Tensile Modulus, 5 mm/min	119500	kgf/cm²	ASTM D 638
Flexural Stress	2530	kgf/cm²	ASTM D 790
Flexural Modulus	91300	kgf/cm²	ASTM D 790
Tensile Stress, yield	158	MPa	ISO 527
Tensile Stress, break	158	MPa	ISO 527
Tensile Strain, yield	2.6	%	ISO 527
Tensile Strain, break	2.7	%	ISO 527
Tensile Modulus, 1 mm/min	11400	MPa	ISO 527
Flexural Stress	243	MPa	ISO 178
Flexural Modulus	8600	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	95	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	9	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	148	cm-kgf	ASTM D 3763
Multiaxial Impact	35	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	60	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
THERMAL			
CTE, -40°C to 40°C, flow	5.4E-06	1/°C	ASTM E 831

(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°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.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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LNP™ THERMOCOMP™ Compound LF005

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -40°C to 40°C, xflow	1.8E-06	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	5.17E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.94E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	239	°C	ISO 75/Af
PHYSICAL			
Density	1.48	g/cm³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.5 - 0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 - 1.2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.64	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1.1	%	ISO 294
Density	1.48	g/cm³	ISO 1183

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	150	°C
Drying Time	4 - 6	hrs
Front - Zone 3 Temperature	380 - 400	°C
Middle - Zone 2 Temperature	380 - 400	°C
Rear - Zone 1 Temperature	370 - 380	°C
Mold Temperature	175 - 190	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	60 - 100	rpm

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