



Americas: COMMERCIAL

LNP* Thermocomp* Compound SF006

Also known as: SF-1006 Product Reorder Name: SF006

LNP THERMOCOMP* SF006 is a compound based on Nylon 12 resin containing Glass Fiber.

Property

Tensile Stress, break	TYPICAL PROPERTIES (1)	Mala.	1114	C4ll	
Fensile Strain, break 4.7 % ASTM D 638 Fensile Modulus, 50 mm/min 6550 MPa ASTM D 638 Flexural Stress 170 MPa ASTM D 790 Flexural Modulus 5860 MPa ASTM D 790 Fensile Stress, break 108 MPa ISO 527 Fensile Strain, break 4.6 % ISO 527 Fensile Modulus, 1 mm/min 6580 MPa ISO 527 Flexural Stress 169 MPa ISO 527 Flexural Modulus 6240 MPa ISO 178 MPACT Value Unit Standard 2xod Impact, unnotched, 23°C 149 J/m ASTM D 4812 2xod Impact, tonotched, 23°C 13 J ISO 180/14 2xod Impact, unnotched, 80°10°4 + 23°C 58 k,J/m² ISO 180/14 2xod Imp					
Fensile Modulus, 50 mm/min 6550 MPa ASTM D 638 Flexural Stress 170 MPa ASTM D 790 Flestile Strain, Modulus 5860 MPa ASTM D 790 Fensile Strain, break 108 MPa ISO 527 Fensile Strain, break 4.6 % ISO 527 Fensile Modulus, 1 mm/min 6580 MPa ISO 527 Flexural Stress 169 MPa ISO 178 Flexural Modulus 6240 MPa ISO 178 MPACT Value Unit Standard zod Impact, unnotched, 23°C 950 J/m ASTM D 4812 zod Impact, notched, 23°C 149 J/m ASTM D 266 nstrumented Impact Energy @ peak, 23°C 13 J ASTM D 266 sod Impact, notched 80°10°4 +23°C 58 kJ/m² ISO 180/1U zod Impact, notched 80°10°4 +23°C 15 kJ/m² ISO 180/1U THERMAL Unit Standard 4-DT, 1.82 MPa, 3.2mm, unannealed 163 °C ASTM D 648	·		1111 41		
Flexural Stress					
Second S	·		1111 41		
Tensile Stress, break					
Tensile Strain, break	Flexural Modulus	5860	MPa	ASTM D 790	
Tensile Modulus, 1 mm/min 6580 MPa ISO 527	Tensile Stress, break	108	1111 41	ISO 527	
Flexural Stress 169 MPa ISO 178 Flexural Modulus 6240 MPa ISO 178 MPACT Value Unit Standard Zod Impact, unnotched, 23°C 950 J/m ASTM D 4812 Zod Impact, unnotched, 23°C 149 J/m ASTM D 256 Instrumented Impact Energy @ peak, 23°C 13 J ASTM D 3763 Multiaxial Impact S 3 J ISO 6603 Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 15 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched 80°10°4 +23°C 58 kJ/m² ISO 180/1U Zod Impact, unnotched, 23°C 58 kJ/m² ISO 178 Zod Impact, unnotched, 23°C 58 kJ/m² ISO 178 Zod Impact, unnotched, 23°C 58 kJ/m² ISO 180/10 Zod Impact, unnotched, 23°C 58 kJ/m² ISO 178 Zod Impact, unnotched, 23°C 58 kJ/m² ISO 180/10 Zod Impact, unnotched, 23°C 58 kJ/m² ISO 180/10 Zod Impact, unnotched, 23°C 58 kJ/m² ISO 180/10 Zod Impact, unnotched, 23°C 58 kJ/m² ISO 1183 Zod Impact, unnotched, 23°C 58 kJ/m² ISO 1183 Zod Impact, unnotched, 23°C 58 kJ/m² ISO 1183	Tensile Strain, break	4.6	%	ISO 527	
Flexural Modulus	Tensile Modulus, 1 mm/min	6580	MPa	ISO 527	
MPACT Value Unit Standard 200 Impact, unnotched, 23°C 950 J/m ASTM D 4812 200 Impact, notched, 23°C 149 J/m ASTM D 256 200 Impact, notched, 23°C 149 J/m ASTM D 256 200	Flexural Stress	169	MPa	ISO 178	
Zod Impact, unnotched, 23°C 950 J/m ASTM D 4812 Zod Impact, notched, 23°C 149 J/m ASTM D 256 Instrumented Impact Energy @ peak, 23°C 13 J ASTM D 3763 Multiaxial Impact 3 J ISO 6603 ISO 6	Flexural Modulus	6240	MPa	ISO 178	
200d Impact, notched, 23°C	IMPACT	Value	Unit	Standard	
Instrumented Impact Energy @ peak, 23°C Multiaxial Impact Zod Impact, unnotched 80*10*4 +23°C Zod Impact, notched 80*10*4 +23°C Zod Impact, unnotched 80*10*4 Zod Impact, unlock and Impact Sod Im	Izod Impact, unnotched, 23°C	950	J/m	ASTM D 4812	
Multiaxial Impact 3 J ISO 6603 zod Impact, unnotched 80*10*4 +23°C 58 kJ/m² ISO 180/1U zod Impact, notched 80*10*4 +23°C 15 kJ/m² ISO 180/1A THERMAL Value Unit Standard HDT, 1.82 MPa, 3.2mm, unannealed 163 °C ASTM D 648 CTE, -40°C to 40°C, flow 4.37E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 1.12E-04 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 4.37E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.24 g/cm³ ASTM D 155-2 CTE, -40°C to 40°C, xflow 1.24 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.24 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.24 9/cm³ ASTM D 955	Izod Impact, notched, 23°C	149	J/m	ASTM D 256	
SO 180/1U SO 180/1A SO 294/1A SO 180/1A SO 1	Instrumented Impact Energy @ peak, 23°C	13	J	ASTM D 3763	
THERMAL Value Unit Standard	Multiaxial Impact	3	J	ISO 6603	
THERMAL Value Unit Standard HDT, 1.82 MPa, 3.2mm, unannealed 163 °C ASTM D 648 CTE, -40°C to 40°C, flow 4.37E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 1.12E-04 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 4.37E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 162 °C ISO 75/Af PHYSICAL Value Unit Standard Density 1.243 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.14 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.2 - 0.3 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Mold Shrinkage, flow, 24 hrs 0.21 - 0.3 % ISO 294 Density 1.24 g/cm³ ISO 1183	Izod Impact, unnotched 80*10*4 +23°C	58	kJ/m²	ISO 180/1U	
HDT, 1.82 MPa, 3.2mm, unannealed CTE, -40°C to 40°C, flow 4.37E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 1.12E-04 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 1.12E-04 4.37E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 4.37E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.2E-04 1/°C ISO 11359-2 ISO 75/Af CHYSICAL Censity Value Unit Standard Density Moisture Absorption, 50% RH, 24 hrs 0.14 ASTM D 792 Moisture Absorption, 50% RH, 24 hrs Mold Shrinkage, flow, 24 hrs 0.2 - 0.3 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.8 Mold Shrinkage, flow, 24 hrs 0.21 - 0.3 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 Density 1.24 1.24 1.24 1.25 1.26 1.27 1.28 1.29 1.29 1.20 1.2	Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A	
CTE, -40°C to 40°C, flow 4.37E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 1.12E-04 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 4.37E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.62 °C ISO 11359-2 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 162 °C ISO 75/Af PHYSICAL Value Unit Standard Density 1.243 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.14 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.2 - 0.3 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.21 - 0.3 % ISO 294 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	THERMAL	Value	Unit	Standard	
CTE, -40°C to 40°C, xflow 1.12E-04 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 4.37E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 162 °C ISO 75/Af PHYSICAL Value Unit Standard Density 1.243 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.14 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.2 - 0.3 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.21 - 0.3 % ISO 294 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	HDT, 1.82 MPa, 3.2mm, unannealed	163	°C	ASTM D 648	
CTE, -40°C to 40°C, flow 4.37E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 162 °C ISO 75/Af PHYSICAL Value Unit Standard Density 1.243 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.14 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.2 - 0.3 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Mold Shrinkage, flow, 24 hrs 0.21 - 0.3 % ISO 294 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	CTE, -40°C to 40°C, flow	4.37E-05	1/°C	ASTM E 831	
CTE, -40°C to 40°C, xflow 1.13E-04 1/°C ISO 11359-2 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 162 °C ISO 75/Af PHYSICAL Value Unit Standard Density 1.243 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.14 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.2 - 0.3 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Mold Shrinkage, flow, 24 hrs 0.21 - 0.3 % ISO 294 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	CTE, -40°C to 40°C, xflow	1.12E-04	1/°C	ASTM E 831	
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm PHYSICAL Density Moisture Absorption, 50% RH, 24 hrs Mold Shrinkage, flow, 24 hrs Mold Shrinkage, xflow, 24 hrs Mold Shrinkage, flow, 24 hrs Mold Shrinkage, flow, 24 hrs Mold Shrinkage, flow, 24 hrs Mold Shrinkage, xflow, 24 hrs	CTE, -40°C to 40°C, flow	4.37E-05	1/°C	ISO 11359-2	
PHYSICAL Value Unit Standard Density 1.243 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.14 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.2 - 0.3 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Mold Shrinkage, flow, 24 hrs 0.21 - 0.3 % ISO 294 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	CTE, -40°C to 40°C, xflow	1.13E-04	1/°C	ISO 11359-2	
Density 1.243 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.14 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.2 - 0.3 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Mold Shrinkage, flow, 24 hrs 0.21 - 0.3 % ISO 294 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	162	°C	ISO 75/Af	
Moisture Absorption, 50% RH, 24 hrs 0.14 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.2 - 0.3 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Mold Shrinkage, flow, 24 hrs 0.21 - 0.3 % ISO 294 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	PHYSICAL	Value	Unit	Standard	
Wold Shrinkage, flow, 24 hrs 0.2 - 0.3 % ASTM D 955 Wold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Wold Shrinkage, flow, 24 hrs 0.21 - 0.3 % ISO 294 Wold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	Density	1.243	g/cm³	ASTM D 792	
Wold Shrinkage, xflow, 24 hrs 0.7 - 0.8 % ASTM D 955 Wold Shrinkage, flow, 24 hrs 0.21 - 0.3 % ISO 294 Wold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	Moisture Absorption, 50% RH, 24 hrs	0.14	%	ASTM D 570	
Mold Shrinkage, flow, 24 hrs 0.21 - 0.3 % ISO 294 Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	Mold Shrinkage, flow, 24 hrs	0.2 - 0.3	%	ASTM D 955	
Mold Shrinkage, xflow, 24 hrs 0.74 - 0.81 % ISO 294 Density 1.24 g/cm³ ISO 1183	Mold Shrinkage, xflow, 24 hrs	0.7 - 0.8	%	ASTM D 955	
Density 1.24 g/cm³ ISO 1183	Mold Shrinkage, flow, 24 hrs	0.21 - 0.3	%	ISO 294	
,	Mold Shrinkage, xflow, 24 hrs	0.74 - 0.81	%	ISO 294	
	Density	1.24	g/cm³	ISO 1183	
	Moisture Absorption (23°C / 50% RH)	0.22	-	ISO 62	

Source GMD, last updated:10/02/2004

Processing

Injection Molding	Value	Unit
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.12 - 0.2	%
Melt Temperature	225 - 240	°C
Front - Zone 3 Temperature	225 - 240	°C
Middle - Zone 2 Temperature	220 - 230	°C
Rear - Zone 1 Temperature	215 - 225	°C
Mold Temperature	70 - 80	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:10/02/2004

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(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.

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- (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.

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