



LNP™ THERMOCOMP™ Compound SF004S

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound SF-1004 HS

Product reorder name: SF004S

LNP THERMOCOMP SF004S is a compound based on Nylon 12 containing 20% glass fiber. Added feature of this material is: Heat Stabilized.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	870	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.7	%	ASTM D 638
Tensile Modulus, 5 mm/min	55100	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1330	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1060	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	46900	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	80	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
Tensile Modulus, 1 mm/min	5210	MPa	ISO 527
Flexural Stress	116	MPa	ISO 178
Flexural Modulus, 2 mm/min	4450	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	60	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	8	cm-kgf/cm	ASTM D 256
Multiaxial Impact	40	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	118	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	35	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	176	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	166	°C	ASTM D 648
CTE, -30°C to 30°C, flow	3.9E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.06E-03	1/°C	ASTM D 696



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THERMAL			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	170	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	158	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.17	-	ASTM D 792
Density	1.17	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.14	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.1 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.8 - 1	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.19	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
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