



LNP™ THERMOCOMP™ Compound IF003

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound IF-1003

Product reorder name: IF003

LNP THERMOCOMP™ IF003 is a compound based on Nylon 6/12 resin containing 15% Glass Fiber.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	1020	kgf/cm ²	ASTM D 638
Tensile Strain, break	2.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	56400	kgf/cm ²	ASTM D 638
Flexural Stress	1660	kgf/cm ²	ASTM D 790
Flexural Modulus	53100	kgf/cm ²	ASTM D 790
Tensile Stress, break	99	MPa	ISO 527
Tensile Strain, break	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	5430	MPa	ISO 527
Flexural Stress	156	MPa	ISO 178
Flexural Modulus	4590	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	24	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	63	cm-kgf	ASTM D 3763
Multiaxial Impact	18	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	22	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	191	°C	ASTM D 648
CTE, -40°C to 40°C, flow	4.51E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.04E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	4.52E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.05E-05	1/°C	ISO 11359-2



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	181	°C	ISO 75/Af
PHYSICAL			
Density	1.18	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.22	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.4 - 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 - 1.2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.4 - 0.6	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1 - 1.1	%	ISO 294
Density	1.17	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.26	%	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	270 - 275	°C
Front - Zone 3 Temperature	270 - 280	°C
Middle - Zone 2 Temperature	260 - 270	°C
Rear - Zone 1 Temperature	255 - 265	°C
Mold Temperature	65 - 95	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm