



LNP™ THERMOCOMP™ Compound MF002AS

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound MF-1002 HS

Product reorder name: MF002AS

LNP THERMOCOMP™ MF002AS is a compound based on Polypropylene resin containing 10% Glass Fiber. Added features of this material include: Heat Stabilized.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	460	kgf/cm ²	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	430	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	340	kgf/cm ²	ASTM D 638
Tensile Strain, break	3.7	%	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.4	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5.4	%	ASTM D 638
Tensile Modulus, 50 mm/min	33100	kgf/cm ²	ASTM D 638
Flexural Stress	700	kgf/cm ²	ASTM D 790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	680	kgf/cm ²	ASTM D 790
Flexural Modulus	29000	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	26500	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	41	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.4	%	ISO 527
Tensile Strain, break, 5 mm/min	4.9	%	ISO 527
Tensile Modulus, 1 mm/min	2840	MPa	ISO 527
Flexural Stress	58	MPa	ISO 178
Flexural Modulus, 2 mm/min	2370	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	38	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Multiaxial Impact	22	cm-kgf	ISO 6603



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IMPACT			
Instrumented Impact Total Energy, 23°C	86	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	24	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	146	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	105	°C	ASTM D 648
CTE, -30°C to 30°C, flow	7.6E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.09E-04	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	122	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	74	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	0.96	-	ASTM D 792
Density	0.96	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.02	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	1 - 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 - 3	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Melt Temperature	225 - 250	°C
Front - Zone 3 Temperature	240 - 250	°C
Middle - Zone 2 Temperature	215 - 225	°C
Rear - Zone 1 Temperature	195 - 205	°C
Mold Temperature	30 - 50	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm