



LNP™ THERMOCOMP™ Compound MF004AS

Americas: COMMERCIAL

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

Product reorder name: MF004AS

LNP THERMOCOMP™ MF004AS is a compound based on Polypropylene resin containing 20% Glass Fiber. Added features of this material include: Heat Stabilized.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	650	kgf/cm ²	ASTM D 638
Tensile Strain, break	2.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	46400	kgf/cm ²	ASTM D 638
Flexural Stress	940	kgf/cm ²	ASTM D 790
Flexural Modulus	44200	kgf/cm ²	ASTM D 790
Tensile Stress, break	65	MPa	ISO 527
Tensile Strain, break	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	5100	MPa	ISO 527
Flexural Stress	104	MPa	ISO 178
Flexural Modulus	5600	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	33	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	84	cm-kgf	ASTM D 3763
Multiaxial Impact	19	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	20	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	160	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	149	°C	ASTM D 648
CTE, -40°C to 40°C, xflow	7.45E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.45E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	145	°C	ISO 75/Af

(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.



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Density	1.034	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.03	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.4 - 0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.9 - 1	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.72	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.95	%	ISO 294
Density	1.03	g/cm ³	ISO 1183
FLAME CHARACTERISTICS			
UL Compliant, 94HB Flame Class Rating (3)(4)	0.75	mm	UL 94 by SABIC-IP

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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

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