



LNP™ THERMOCOMP™ Compound AB002

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound AB-1002

Product reorder name: AB002

LNP THERMOCOMP AB002 is a compound based on ABS resin containing 10% Glass Bead.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	350	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	320	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	29	%	ASTM D 638
Tensile Modulus, 50 mm/min	28100	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	650	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	640	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	26400	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	34	MPa	ISO 527
Tensile Stress, break, 5 mm/min	30	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.2	%	ISO 527
Tensile Strain, break, 5 mm/min	24	%	ISO 527
Tensile Modulus, 1 mm/min	2600	MPa	ISO 527
Flexural Stress	60	MPa	ISO 178
Flexural Modulus, 2 mm/min	2410	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	56	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	12	cm-kgf/cm	ASTM D 256
Multiaxial Impact	25	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	132	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80°10'4 +23°C	34	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10'4 +23°C	10	kJ/m ²	ISO 180/1A

(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.

Source GMD, last updated:

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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	93	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	81	°C	ASTM D 648
CTE, -30°C to 30°C, flow	8.7E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	8.9E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	92	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	79	°C	ISO 75/Af
PHYSICAL			
Density	1.12	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.22	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.6 - 0.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.8 - 1	%	ASTM D 955
Density	1.11	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.36	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.05 - 0.1	%
Melt Temperature	260	°C
Front - Zone 3 Temperature	265 - 275	°C
Middle - Zone 2 Temperature	230 - 245	°C
Rear - Zone 1 Temperature	205 - 215	°C
Mold Temperature	70 - 80	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

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