LNP™ THERMOCOMP™ Compound SH1100A

Americas: OBSOLETE

Also known as: LNP™ THERMOCOMP™ Compound SH1100A
Product reorder name: SH1100A

LNP THERMOCOMP SH1100A is a compound based on Nylon 12 resin containing Proprietary Filler(s). Added feature of this material is: High Specificy Gravity.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	19	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	0.5	%	ASTM D 638
Tensile Modulus, 5 mm/min	11160	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	42	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	38	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	10900	MPa	ASTM D 790
Tensile Strain, break, 5 mm/min	0.5	%	ISO 527
Tensile Modulus, 1 mm/min	4730	MPa	ISO 527
Flexural Stress	38	MPa	ISO 178
Flexural Modulus, 2 mm/min	8700	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	88	J/m	ASTM D 4812
Izod Impact, notched, 23°C	65	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	4	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	10	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	161	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	122	°C	ASTM D 648
CTE, -30°C to 30°C, flow	3.1E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	3.1E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	160	°C	ISO 75/Bf

(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/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	129	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	11	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.03	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.3 - 0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.3 - 0.5	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Melt Temperature	250	°C
Nozzle Temperature	250	°C
Front - Zone 3 Temperature	250	°C
Middle - Zone 2 Temperature	250	°C
Rear - Zone 1 Temperature	250	°C
Hopper Temperature	45	°C
Mold Temperature	70	°C
Back Pressure	0.4	MPa
Screw Speed	66	rpm

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