LNP™ THERMOCOMP™ Compound AF0029

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound AF-1002 FR-1 BK8-115
Product reorder name: AF0029

LNP THERMOCOMP AF0029 is an ABS base resin containing Glass Fiber. Characteristics of this grade are Flame Retardancy.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	720	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	720	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.1	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	55900	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1120	kgf/cm²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1120	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	49100	kgf/cm²	ASTM D 790
Tensile Stress, yield, 5 mm/min	70	MPa	ISO 527
Tensile Stress, break, 5 mm/min	70	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	5040	MPa	ISO 527
Flexural Stress	100	MPa	ISO 178
Flexural Modulus, 2 mm/min	4520	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	28	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Multiaxial Impact	15	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	58	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	17	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	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:

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA.

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THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	105	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	97	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.E-06	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	105	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	97	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.28	-	ASTM D 792
Density	1.27	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.19	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.3 - 0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.4 - 0.6	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.3	%	ISO 62

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Source GMD, last updated:

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+852-6957-5415 (HongKong)

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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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