

## LNP\* Thermocomp\* Compound WF0039U

Americas: COMMERCIAL

Also known as: THERMOCOMP WF-1003 FR-S UV  
Product Reorder Name: WF0039U

LNP\* Thermocomp\* WF0039U is a compound based on Thermoplastic Polyester (PBT) resin containing Glass Fiber. Characteristics of this grade are: Flame Retardant and UV Stabilized.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, brk, Type I, 5 mm/min	95	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	7240	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	137	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	6060	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	95	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	7080	MPa	ISO 527
Flexural Stress	145	MPa	ISO 178
Flexural Modulus, 2 mm/min	6360	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	342	J/m	ASTM D 4812
Izod Impact, notched, 23°C	48	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	19	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m <sup>2</sup>	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	215	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	194	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.23E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.07E+02	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	212	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	185	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.58	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.05	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.5 - 0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 - 3	%	ASTM D 955
Density	1.57	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62

Source GMD, last updated:2009/06/10

### Processing

Parameter	Value	Unit
Injection Molding		

Drying Temperature	120	°C
Drying Time	4	hrs
Maximum Moisture Content	0.05	%
Melt Temperature	245 - 260	°C
Front - Zone 3 Temperature	250 - 260	°C
Middle - Zone 2 Temperature	245 - 255	°C
Rear - Zone 1 Temperature	230 - 245	°C
Mold Temperature	80 - 100	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:2009/06/10

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(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.

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