SABIC Innovative Plastics™

LNP* Thermocomp* Compound TF002 Americas: COMMERCIAL

Also known as: THERMOCOMP TF-1002 BK8004
Product Reorder Name: TF002

LNP* Thermocomp* TF002 is a compound based on Polyurethane containing Glass Fiber.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	42	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	38	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	32.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	53	%	ASTM D 638
Tensile Modulus, 50 mm/min	1460	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	900	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	43	MPa	ISO 527
Tensile Stress, break, 5 mm/min	40	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	33.6	%	ISO 527
Tensile Strain, break, 5 mm/min	55.4	%	ISO 527
Tensile Modulus, 1 mm/min	1260	MPa	ISO 527
Flexural Stress	26	MPa	ISO 178
Flexural Modulus, 2 mm/min	950	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	1230	J/m	ASTM D 4812
Izod Impact, notched, 23°C	334	J/m	ASTM D 256
Multiaxial Impact	24	J	ISO 6603
Instrumented Impact Total Energy, 23°C	29	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	129	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	31	kJ/m²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	152	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	67	°C	ASTM D 648
CTE, -30°C to 30°C, flow	8.93E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.72E+02	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	148	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	61	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.31	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.4	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.6 - 0.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.7 - 0.9	%	ASTM D 955
Density	1.31	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.61	%	ISO 62

Source GMD, last updated:2009/07/06

Processing

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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