

LNP* Thermocomp* Compound EC005R

Americas: COMMERCIAL

PEI, Carbon Fiber, Mold Release,

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	132	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	200	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	0.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	41990	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	275	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	19080	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	83	MPa	ISO 527
Tensile Stress, break, 5 mm/min	179	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	0	%	ISO 527
Tensile Strain, break, 5 mm/min	1	%	ISO 527
Tensile Modulus, 1 mm/min	22900	MPa	ISO 527
Flexural Modulus, 2 mm/min	18560	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	519	J/m	ASTM D 4812
Izod Impact, notched, 23°C	64	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	29	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	214	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	207	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.88E+01	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	2.4E+01	1/°C	ASTM E 831
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	217	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	210	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.36	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.18	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0 - 0	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0 - 0	%	ASTM D 955
Density	1.36	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.18	%	ISO 62

Source GMD, last updated:01/28/2008

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4	hrs
Maximum Moisture Content	0.05	%

Melt Temperature	360 - 365	°C
Front - Zone 3 Temperature	365 - 375	°C
Middle - Zone 2 Temperature	355 - 365	°C
Rear - Zone 1 Temperature	345 - 355	°C
Mold Temperature	120 - 150	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	60 - 100	rpm

Source GMD, last updated:01/28/2008

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.

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