

LNPTM THERMOTUFTM COMPOUND DF008EI

DF-1008 EM HI MR

DESCRIPTION

LNP THERMOTUF DF008EI compound is based on Polycarbonate (PC) resin containing 40% glass fiber. Added features of this grade include: Easy Molding, Impact Modified.

GENERAL INFORMATION	
Features	Good Processability, High stiffness/Strength, Impact resistant, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

MECHANICALMPaASTM D638Tensile Stress, yield132MPaASTM D638Tensile Strain, yield2.2%ASTM D638Tensile Strain, break2.2%ASTM D638Tensile Strain, break12630MPaASTM D638Tensile Strain, break199MPaASTM D790Flexural Modulus, 50 mm/min10610MPaASTM D790Tensile Stress, yield199MPaSto 527Tensile Stress, yield10610MPaSto 527Tensile Stress, yield2%Sto 527Tensile Stress, yield1060MPaSto 527Tensile Stress, yield1060MPaSto 527Tensile Strain, yield1060MPaSto 527Tensile Modulus, 1 mm/min1060MPaSto 527Flexural Modulus1090MPaSto 527Tensile Modulus, 1 nm/min1060MPaSto 527Tensile Modulus, 1 nm/min1060MPaSto 527Tenzile Modulus, 1 nm/min1060MPaSto 527Tenzile Modulus1090MPaSto 78Impert ¹⁰ 1090MPaSto 78Motart1090MPaSto 78Motart1090MPaSto 78Motart1090MPaSto 78Motart1090MPaSto 78Motart1090MPaSto 78Motart1090MPaSto 78Motart1090MPaSto 78Motar	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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Tensile Stress, yield199MPa50 527Tensile Stress, break3030 52730 527Tensile Strain, yield2%50 527Tensile Strain, break2%50 527Tensile Strain, break1060MPa50 527Tensile Modulus, 1 mm/min1000MPa50 527Flexural Stress400MPa50 178Internet ModulusMPa50 17850 178Tensile Strain, break300MPa50 178Internet ModulusMPa50 17850 178Internet ModulusMPaMPa50 178Internet ModulusMPaMPa50 178Internet ModulusMPaMPa50 178Internet ModulusMPaMPaMPaInternet ModulusMPaMPaMPa <td>Flexural Stress</td> <td>199</td> <td>MPa</td> <td>ASTM D790</td>	Flexural Stress	199	MPa	ASTM D790
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Tensile Strain, break2%ISO 527Tensile Modulus, 1 mm/min1060MPaISO 527Flexural Stress140MPaISO 178Flexural ModulusMPaISO 178Image: MPaImpact (1)1000MPaISO 178Izod Impact, nunotched, 23°C838J/mASTM D4812Izod Impact, notched, 23°C160J/mASTM D256Istrumented Dart Impact Energy@peak, 23°C23JMatMultiaxial Impact1So 663	Tensile Stress, break	130	MPa	ISO 527
Tensile Modulus, 1 mm/min11060MPaISO 527Flexural Stress140MPaISO 178Flexural Modulus0090MPaISO 178IMPACT ⁽¹⁾ Impact, 10Impact, 10Impact, 10Izod Inpact, unotched, 23°C838J/mASTM D4812Isod Inpact, notched, 23°C160J/mASTM D256Instrumented Dart Impact, Energy@peak, 23°C23JMSo 663	Tensile Strain, yield	2	%	ISO 527
Flexural Stress140MPaISO 178Flexural Modulus10090MPaISO 178IMPACT ⁽¹⁾ Impact, unotched, 23°C838ImpactImpactIzod Impact, notched, 23°C160J/mASTM D4812Instrumented Dart Impact Energy@peak, 23°C23ImpactImpactImpactMultiaxial Impact7ImpactImpactImpactImpact	Tensile Strain, break	2	%	ISO 527
Flexural Modulus10090MPaISO 178IMPACT ⁽¹⁾ ISO 178Izod Impact, unnotched, 23°C838J/mASTM D4812Izod Impact, notched, 23°C160J/mASTM D256Instrumented Dart Impact Energy@peak, 23°C23JMSO 6603	Tensile Modulus, 1 mm/min	11060	MPa	ISO 527
IMPACT ⁽¹⁾ SAR J/m ASTM D4812 Izod Impact, unnotched, 23°C 60 J/m ASTM D256 Isod Impact, notched, 23°C 23 J/m ASTM D256 Instrumented Dart Impact Energy@peak, 23°C 23 J ASTM D3763 Multiaxial Impact 7 J SO 603	Flexural Stress	140	MPa	ISO 178
Izod Impact, unnotched, 23°C 838 J/m ASTM D4812 Izod Impact, notched, 23°C 160 J/m ASTM D256 Instrumented Dart Impact Energy@peak, 23°C 23 J ASTM D3763 Multiaxial Impact 7 S0 J S0	Flexural Modulus	10090	MPa	ISO 178
Izod Impact, notched, 23°C 160 J/m ASTM D256 Instrumented Dart Impact Energy@peak, 23°C 23 J ASTM D3763 Multiaxial Impact 7 J ISO 6603	IMPACT ⁽¹⁾			
Instrumented Dart Impact Energy@peak,23°C 23 J ASTM D3763 Multiaxial Impact 7 J ISO 6603	Izod Impact, unnotched, 23°C	838	J/m	ASTM D4812
Multiaxial Impact 7 J ISO 6603	Izod Impact, notched, 23°C	160	J/m	ASTM D256
	Instrumented Dart Impact Energy @ peak, 23°C	23	J	ASTM D3763
Izod Impact: uppotched 80*10*4 +23°C 51 kl/m ² ISO 180/111	Multiaxial Impact	7	J	ISO 6603
	Izod Impact, unnotched 80*10*4 +23°C	51	kJ / m²	ISO 180/1U

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Revision 20231109



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	16	kJ / m²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	133	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.52E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	4.14E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	2.66E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.25E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	135	°C	ISO 75/Af
Relative Temp Index, Elec ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	80	°C	UL 746B
PHYSICAL ⁽¹⁾			
Density	1.51	g/cm³	ASTM D792
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.3	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.1 – 0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.2 – 0.4	%	ISO 294
Density	1.51	g/cm ³	ISO 1183
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	<u>E121562-101345269</u>	-	
UL Yellow Card Link 2	E207780-101345229	-	
UL Recognized, 94HB Flame Class Rating	≥0.4	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 - 330	°C	
Middle - Zone 2 Temperature	310 - 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 - 60	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) 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.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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