



LNP™ THERMOCOMP™ Compound EC008APQ

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound EC008APQ

Product reorder name: EC008APQ

LNP THERMOCOMP EC008APQ is a compound based on Polyetherimide containing 40% Carbon Fiber. Added features of this material include: Electrically Conductive, High Flow.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	2730	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1	%	ASTM D 638
Tensile Modulus, 5 mm/min	401900	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	3630	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	319100	kgf/cm ²	ASTM D 790
Hardness, Rockwell M	112	-	ASTM D 785
Tensile Stress, break, 5 mm/min	247	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.9	%	ISO 527
Tensile Modulus, 1 mm/min	35480	MPa	ISO 527
Flexural Stress	364	MPa	ISO 178
Flexural Modulus, 2 mm/min	30560	MPa	ISO 178
Compressive Strength	218	MPa	SABIC Method
Shear Strength	1223	kgf/cm ²	ASTM C 273
Shear Modulus	47470	kgf/cm ²	ASTM C 273
IMPACT			
Izod Impact, unnotched, 23°C	57	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	6	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	74	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	33	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	193	°C	ASTM D 648
CTE, -40°C to 150°C, flow	3.E-06	1/°C	ASTM E 831

(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:

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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -40°C to 150°C, xflow	4.E-05	1/°C	ASTM E 831
PHYSICAL			
Specific Gravity	1.44	-	ASTM D 792
Density	1.433	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.11	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.01 - 0.05	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.1 - 0.5	%	ASTM D 955
Melt Flow Rate, 380°C/6.7 kgf	40	g/10 min	ASTM D 1238
ELECTRICAL			
Volume Resistivity	4.1E+03	Ohm-cm	ASTM D 257
Surface Resistivity	4.5E+02	Ohm	ASTM D 257

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	380 - 400	°C
Front - Zone 3 Temperature	380 - 400	°C
Middle - Zone 2 Temperature	380 - 400	°C
Rear - Zone 1 Temperature	380 - 400	°C
Mold Temperature	165 - 180	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	50 - 100	rpm

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