

# LNPT<sup>TM</sup> THERMOCOMP<sup>TM</sup> COMPOUND EC006AQW

## DESCRIPTION

LNP THERMOCOMP EC006AQW compound is based on Polyetherimide (PEI) resin containing 30% carbon fiber. Added features of this grade include: Electrically Conductive. This grade has been pre-assessed and passed the material related tests from the ISO 10993 "Biological Evaluation of Medical Devices".

GENERAL INFORMATION	
Features	Electrically Conductive, Biocompatibility-ISO 10993, Healthcare/Formula lock, Carbon fiber filled, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, brk, Type I, 5 mm/min	255	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.4	%	ASTM D638
Tensile Modulus, 5 mm/min	29220	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	351	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	22200	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	257	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.4	%	ISO 527
Tensile Modulus, 1 mm/min	27540	MPa	ISO 527
Flexural Strength, 2 mm/min	350	MPa	ISO 178
Flexural Modulus, 2 mm/min	23280	MPa	ISO 178
Compressive Strength	234	MPa	SABIC method
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	580	J/m	ASTM D4812
Izod Impact, notched, 23°C	80	J/m	ASTM D256
Izod Impact, unnotched 80°10°4 +23°C	32	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	7	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 3.2mm, unannealed	198	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm	198	°C	ISO 75/Af
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.39	-	ASTM D792
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.1 – 0.3	%	ASTM D955

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	0.1 – 0.6	%	ASTM D955
Melt Flow Rate, 380°C/6.7 kgf	10	g/10 min	ASTM D1238
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 400	°C	
Rear - Zone 1 Temperature	360 – 380	°C	
Middle - Zone 2 Temperature	370 – 390	°C	
Front - Zone 3 Temperature	380 – 400	°C	
Nozzle Temperature	390 – 400	°C	
Mold Temperature	140 – 180	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw speed (Circumferential speed)	0.2 – 0.3	m/s	
Vent Depth	0.025 – 0.076	mm	

- (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) 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.
- (3) 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.

## MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>

## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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