

# LNPT<sup>TM</sup> THERMOCOMP<sup>TM</sup> COMPOUND KZ002

KF-1002 M

## DESCRIPTION

LNP THERMOCOMP KZ002 compound is based on POM (Acetal) copolymer resin containing 10% milled glass.

GENERAL INFORMATION	
Features	Low Warpage, High stiffness/Strength
Fillers	Milled Glass Fiber
Polymer Types	Acetal (POM) Copolymer
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

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yld, Type I, 5 mm/min	55	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	53	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	9.6	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	18.6	%	ASTM D638
Tensile Modulus, 5 mm/min	3630	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2770	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	55	MPa	ISO 527
Tensile Stress, break, 5 mm/min	54	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	10.1	%	ISO 527
Tensile Strain, break, 5 mm/min	21.3	%	ISO 527
Tensile Modulus, 1 mm/min	3410	MPa	ISO 527
Flexural Stress	74	MPa	ISO 178
Flexural Modulus, 2 mm/min	2950	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	816	J/m	ASTM D4812
Izod Impact, notched, 23°C	42	J/m	ASTM D256
Multiaxial Impact	1	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	5	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	49	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	4	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	153	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	101	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.1E-04	1 /°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.1E-04	1 /°C	ASTM D696
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.49	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.18	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	2 – 4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	2 – 4	%	ASTM D955
Density	1.49	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.26	%	ISO 62
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	200 – 215	°C	
Front - Zone 3 Temperature	210 – 220	°C	
Middle - Zone 2 Temperature	195 – 205	°C	
Rear - Zone 1 Temperature	175 – 190	°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) 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.

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