

# LNPT<sup>™</sup> THERMOCOMP<sup>™</sup> COMPOUND 9X1 1428J

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## DESCRIPTION

LNP THERMOCOMP 9X1 1428J compound is based on Polyphenylsulfone (PPSU) containing proprietary filler. Added features of this grade include: Healthcare, Low Extractables, Food Contact compliant.

GENERAL INFORMATION	
Features	Food contact, Healthcare/Formula lock, X-Ray and metal detection, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyphenylsulfone (PPSU)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging, Food & Beverage

## 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	74	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	58	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	8	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	15	%	ASTM D638
Tensile Modulus, 5 mm/min	2380	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2430	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	71	MPa	ISO 527
Tensile Stress, break, 5 mm/min	57	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	7	%	ISO 527
Tensile Strain, break, 5 mm/min	22	%	ISO 527
Tensile Modulus, 1 mm/min	2330	MPa	ISO 527
Flexural Stress	91	MPa	ISO 178
Flexural Modulus, 2 mm/min	2270	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched, 23°C	187	J/m	ASTM D256
Multiaxial Impact	44	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	42	J	ASTM D3763
Izod Impact, notched 80*10*4 +23°C	10	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	213	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	199	°C	ASTM D648
CTE, -30°C to 30°C, flow	5.5E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	5.5E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	210	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	196	°C	ISO 75/Af
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.34	-	ASTM D792
Density	1.34	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.29	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.9 – 2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	1 – 3	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.4	%	ISO 62
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 265	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	220 – 230	°C	
Mold Temperature	80 – 100	°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.

## 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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