

# LNPT<sup>™</sup> THERMOCOMP<sup>™</sup> COMPOUND DF002FV

## DESCRIPTION

LNP THERMOCOMP DF002FV compound is based on Polycarbonate (PC) resin containing 10% glass fiber. Added features of this grade include: Improved Plating Surface and Mechanical Performance targeted for Laser Direct Structuring (LDS) applications, Good Surface Aesthetics and Wide Processing Window.

GENERAL INFORMATION	
Features	Dielectrics, Laser Direct Structuring, Aesthetics/Visual effects, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Consumer	Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

## TYPICAL PROPERTY VALUES

Revision 20241021

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, brk, Type I, 5 mm/min	60	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	4.1	%	ASTM D638
Tensile Modulus, 5 mm/min	3800	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	110	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	3600	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	700	J/m	ASTM D4812
Izod Impact, notched, 23°C	170	J/m	ASTM D256
<b>THERMAL <sup>(1)</sup></b>			
HDT, 0.45 MPa, 3.2 mm	125	°C	ASTM D648
HDT, 1.82 MPa, 3.2 mm	119	°C	ASTM D648
Relative Temp Index, Elec <sup>(2)</sup>	80	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	80	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	80	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.27	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm <sup>(3)</sup>	0.3	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm <sup>(3)</sup>	0.5	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	29	g/10 min	ASTM D1238

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>ELECTRICAL <sup>(1)</sup></b>			
Dielectric Constant, 1.1 GHz	3.05	-	SABIC method
Dielectric Constant, 1.9 GHz	3.05	-	SABIC method
Dielectric Constant, 5 GHz	3.03	-	SABIC method
Dissipation Factor, 1.1 GHz	0.014	-	SABIC method
Dissipation Factor, 1.9 GHz	0.013	-	SABIC method
Dissipation Factor, 5 GHz	0.011	-	SABIC method
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="https://www.ul.com/Products/UL-94-Flame-Retardant-Plastics">E207780-102822332</a>	-	-
UL Recognized, 94HB Flame Class Rating	0.5	mm	UL 94
<b>INJECTION MOLDING <sup>(4)</sup></b>			
Drying Temperature	110	°C	
Drying Time	3 – 4	Hrs	
Melt Temperature	270 – 295	°C	
Nozzle Temperature	270 – 295	°C	
Front - Zone 3 Temperature	270 – 295	°C	
Middle - Zone 2 Temperature	270 – 295	°C	
Rear - Zone 1 Temperature	270 – 295	°C	
Mold Temperature	100 – 120	°C	

- (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.

## 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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