

LNPTM THERMOCOMPTM COMPOUND DF002FV

DESCRIPTION

LNP* Thermocomp* DF002FV compound is a 10% glass fiber reinforced, impact modified PC resin based LDS material solution with stable plating and RF performance. Good surface aesthetics and wide processing window makes it a good candidate for internal and external parts for Laser Direct Structuring applications.

TYPICAL PROPERTY VALUES

Revision 20191217

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Strain, brk, Type I, 5 mm/min	4.1	%	ASTM D 638
Tensile Modulus, 5 mm/min	3800	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	110	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3600	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	60	MPa	ISO 527
IMPACT			
Izod Impact, unnotched, 23°C	700	J/m	ASTM D 4812
Izod Impact, notched, 23°C	170	J/m	ASTM D 256
THERMAL			
HDT, 0.45 MPa, 3.2 mm	125	°C	ASTM D 648
HDT, 1.82 MPa, 3.2 mm	119	°C	ASTM D 648
Relative Temp Index, Elec ⁽¹⁾	80	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽¹⁾	80	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽¹⁾	80	°C	UL 746B
PHYSICAL			
Specific Gravity	1.27	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.3	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.5	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	29	g/10 min	ASTM D 1238
ELECTRICAL			
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
FLAME CHARACTERISTICS ⁽¹⁾			
UL Yellow Card Link	E207780-102822332	-	-
UL Recognized, 94HB Flame Class Rating	0.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	110	°C	
Drying Time	3 – 4	hrs	
Melt Temperature	270 – 295	°C	
Nozzle Temperature	270 – 295	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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) 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.

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