

LNPTM THERMOCOMPTM COMPOUND DF002FVQ

DESCRIPTION

LNP THERMOCOMP DF002FVQ compound is a 10% glass fiber reinforced Copolymer PC-based resin, UL94 V0@0.8mm and black LDS grade with good plate-ability and adhesion strength.

TYPICAL PROPERTY VALUES

Revision 20200318

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	60	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Modulus, 5 mm/min	4610	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	4300	MPa	ASTM D 790
Flexural Strength, 1.3 mm/min, 50 mm span	115	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	60	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.5	%	ISO 527
Tensile Modulus, 1 mm/min	4625	MPa	ISO 527
Flexural Modulus, 2 mm/min	4100	MPa	ISO 178
Flexural Strength, 2 mm/min	110	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	100	J/m	ASTM D 256
Izod Impact, unnotched, 23°C	600	J/m	ASTM D 4812
Izod Impact, notched 80°10*4 +23°C	9	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80°10*4 sp=62mm	10	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80°10*4 sp=62mm	42	kJ/m ²	ISO 179/1eU
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	126	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	120	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	3.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.7E-05	1/°C	ISO 11359-2
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			
Density	1.35	g/cm ³	ASTM D 792
Melt Flow Rate, 300°C/1.2 kgf	11	g/10 min	ASTM D 1238
Mold Shrinkage, flow	0.2 – 0.4	%	SABIC method
Mold Shrinkage, xflow	0.3 – 0.5	%	SABIC method
ELECTRICAL			
Dielectric Constant, 1.1 GHz	3.15	-	SABIC method
Dissipation Factor, 1.1 GHz	0.01	-	SABIC method
Dielectric Constant, 1.9 GHz	3.17	-	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Dissipation Factor, 1.9 GHz	0.01	-	SABIC method
Dielectric Constant, 5 GHz	3.15	-	SABIC method
Dissipation Factor, 5 GHz	0.01	-	SABIC method
Dielectric Constant, 10 GHz	3.17	-	SABIC method
Dissipation Factor, 10 GHz	0.01	-	SABIC method
Dielectric Constant, 20 GHz	3.04	-	SABIC method
Dissipation Factor, 20 GHz	0.01	-	SABIC method
FLAME CHARACTERISTICS ⁽¹⁾			
UL Yellow Card Link	E207780-103895096	-	-
UL Recognized, 94V-0 Flame Class Rating	0.8	mm	UL 94
INJECTION MOLDING			
Drying Temperature	110	°C	
Drying Time	3 – 4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	290 – 310	°C	
Nozzle Temperature	285 – 310	°C	
Front - Zone 3 Temperature	285 – 310	°C	
Middle - Zone 2 Temperature	285 – 310	°C	
Rear - Zone 1 Temperature	285 – 310	°C	
Mold Temperature	100 – 130	°C	
Back Pressure	0.1 – 0.3	MPa	
Screw Speed	50 – 150	rpm	

(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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.