LNP™ THERMOCOMP™ COMPOUND MF006SXP

MFX-1006
REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP MF006SXP compound is based on Polypropylene (PP) resin containing 30% glass fiber. Added features of this grade include: Heat Stabilized.

GENERAL INFORMATION	
Features	Heat Stabilized, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polypropylene, Unspecified (PP, Unspecified)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Sport/Leisure, Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	88	MPa	ASTM D638
Tensile Strain, break	3	%	ASTM D638
Tensile Modulus, 50 mm/min	7300	MPa	ASTM D638
Flexural Stress	139	MPa	ASTM D790
Flexural modulus	6200	MPa	ASTM D790
Tensile Stress, break	91	MPa	ISO 527
Tensile Strain, break	3.2	%	ISO 527
Tensile Modulus, 1 mm/min	7600	MPa	ISO 527
Flexural Stress	159	MPa	ISO 178
Flexural Modulus	8700	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	704	J/m	ASTM D4812
Izod Impact, notched, 23°C	117	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	3	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	160	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	150	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	2.64E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.97E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	2.64E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.98E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	152	°C	ISO 75/Af
Relative Temp Index, Elec (2)	65	°C	UL 746B
Relative Temp Index, Mech w/impact (2)	65	°C	UL 746B
Relative Temp Index, Mech w/o impact (2)	65	°C	UL 746B
PHYSICAL (1)			
Density	1.13	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.02	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (3)	0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (3)	1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (3)	0.5	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (3)	0.96	%	ISO 294
Density	1.13	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62
ELECTRICAL (1)			
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 3	≥1	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 1	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3	≥1	mm	UL 746A
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D495
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E121562-101283897	-	-
UL Recognized, 94HB Flame Class Rating	≥1	mm	UL 94
INJECTION MOLDING (4)			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	225 – 250	°C	
Front - Zone 3 Temperature	240 – 250	°C	
Middle - Zone 2 Temperature	215 – 225	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	30 – 50	°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) 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.

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.