LNP™ THERMOCOMP™ Compound DX06313

DESCRIPTION

LNP THERMOCOMP DX06313 compound is based on Polycarbonate (PC) resin containing 30% glass fiber. Added features of this grade include: Impact Modified, Thin-Wall Molding.

GENERAL INFORMATION	
Features	Thin Wall, High stiffness/Strength, Impact resistant, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20260804

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	99	MPa	ASTM D638
Tensile Strain, Break			
Type I, 5 mm/min	3.6	%	ASTM D638
5 mm/min	3.5	%	ISO 527
Tensile Modulus, 5 mm/min	7500	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	170	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7000	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	90	MPa	ISO 527
Tensile Modulus, 1 mm/min	7420	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	170	MPa	ISO 178
Flexural Modulus, 2 mm/min	6650	MPa	ISO 178
IMPACT [1]			
Izod impact, notched			
-30°C	120	J/m	ASTM D256
23°C (Natural & Black Colors)	190	J/m	ASTM D256
23°C (Light & White Colors)	90	J/m	ASTM D256
80*10*4 +23°C	16	kJ/m²	ISO 180/1A
80*10*4 -30°C	12	kJ/m²	ISO 180/1A
Instrumented Dart Impact Total Energy, 23°C	24	J	ASTM D3763
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	15	kJ/m²	ISO 179/1eA
THERMAL [1]			
Vicat Softening Temp, Rate B/50	142	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed	136	°C	ASTM D648

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	2.2E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.8E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	2.2E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.8E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	142	°C	ISO 306
Vicat Softening Temp, Rate B/120	143	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	136	°C	ISO 75/Af
Relative Temp Index, Elec [2]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	80	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.42	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm [3]	0.3 – 0.5	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	4.6	g/10 min	ASTM D1238
Melt Flow Rate, 300°C/5.0 kgf	42	g/10 min	ASTM D1238
Density	1.42	g/cm³	ISO 1183
Water Absorption, (23°C/saturated)	0.4	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
Melt Volume Rate, MVR at 300°C/5.0 kg	32	cm³/10 min	ISO 1133
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-101284061	-	-
UL Recognized, 94HB Flame Class Rating	1.6	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	315 – 340	°C	
Nozzle Temperature	310 – 330	°C	
Front - Zone 3 Temperature	315 – 340	°C	
Middle - Zone 2 Temperature	305 – 325	°C	
Rear - Zone 1 Temperature	295 – 315	°C	
Mold Temperature	80 – 115	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

(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.

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MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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