LNP™ THERMOCOMP™ COMPOUND DC0041PR

DESCRIPTION

LNP THERMOCOMP DC0041PR compound is based on Polycarbonate (PC) resin containing 20% carbon fiber. Added features of this grade include: Electrically Conductive, Non-Brominated, Non-Chlorinated Flame Retardant, PCR content up to 30%.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, Sustainable (Mechanical Recycling), Non Cl/Br flame retardant, Carbon fiber filled, High stiffness/Strength, Impact resistant
Fillers	Carbon Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	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, brk, Type I, 5 mm/min	160	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.1	%	ASTM D638
Tensile Modulus, 5 mm/min	19000	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	200	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	17500	MPa	ASTM D790
IMPACT [1]			
Izod Impact, unnotched, 23°C	400	J/m	ASTM D4812
Izod Impact, notched, 23°C	55	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	9	J	ASTM D3763
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	86	°C	ASTM D648
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	1.32	-	ASTM D792
Mold Shrinkage, flow, 24 hrs [3]	0.08	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.33	%	ASTM D955
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-102741949	-	-

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
UL Recognized, 94V-0 Flame Class Rating	≥0.8	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	70	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	275 – 310	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	60 – 80	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 63	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