LNP™ STAT-KON™ COMPOUND DE0049P

DC-1004 EP FR

DESCRIPTION

LNP STAT-KON DE0049P compound is based on Polycarbonate (PC) resin containing 20% carbon fiber. Added features of this grade include: Electrically Conductive, Flame Retardant, Exceptional Processing.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, High Flow, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20241028

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	137	MPa	ASTM D638
Tensile Strain, break	0.9	%	ASTM D638
Tensile Modulus, 50 mm/min	16540	MPa	ASTM D638
Flexural Stress	193	MPa	ASTM D790
Flexural Modulus	12410	MPa	ASTM D790
Tensile Stress, break	132	MPa	ISO 527
Tensile Strain, break	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	15960	MPa	ISO 527
Flexural Stress	219	MPa	ISO 178
Flexural Modulus	13200	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	432	J/m	ASTM D4812
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	28	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	143	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	138	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.24E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.42E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	3.30E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.50E-05	1/°C	ISO 11359-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	143	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	139	°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]			
Density	1.33	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [3]	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.5 – 0.7	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	0.14	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.56	%	ISO 294
Density	1.33	g/cm³	ISO 1183
ELECTRICAL [1]			
Surface Resistivity [4]	1.E+02 – 1.E+06	Ω	ASTM D257
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101343400	-	-
UL Yellow Card Link 2	E207780-102991906	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING [5]			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°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) Measurement meets requirements as specified in ASTM D4496.

(5) 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