LNP™ STAT-KON™ COMPOUND DE0049F

DC-1004 FR SM

DESCRIPTION

LNP* STAT-KON* DE0049F is a compound based on Polycarbonate resin containing 20% Carbon Fiber. Added features of this material include: Electrically Conductive, Flame Retardant, Superior, Molding.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	137	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	137	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	1.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	13420	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	190	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	11550	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	134	MPa	ISO 527
Tensile Stress, break, 5 mm/min	134	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.6	%	ISO 527
Tensile Strain, break, 5 mm/min	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	14970	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	166	MPa	ISO 178
Flexural Strain, break, 2 mm/min	166	%	ISO 178
Flexural Modulus, 2 mm/min	11650	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	488	J/m	ASTM D 4812
Izod Impact, notched, 23°C	47	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	29	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	146	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	143	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.23E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.79E-05	1/°C	ASTM E 831
CTE, 23°C to 60°C, flow	1.23E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	6.79E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	148	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	144	°C	ISO 75/Af
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	1.33	g/cm³	ASTM D 792

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption, 50% RH, 24 hrs	0.13	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.7 – 1	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.4 – 0.7	%	ASTM D 955
Density	1.33	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.18	%	ISO 62
ELECTRICAL			
Surface Resistivity	1.E+01 – 1.E+03	Ohm	ASTM D 257
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E121562-101283793	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING			
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) 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.

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