LNP™ STAT-KON™ COMPOUND RE0029

RC-1002 FR

DESCRIPTION

LNP STAT-KON RE0029 is a compound based on Nylon 66 resin containing 10% Carbon Fiber. Added features of this material include: Electrically Conductive, Flame Retardant.

TYPICAL PROPERTY VALUES

Revision 20200109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	131	MPa	ASTM D 638
Tensile Stress, break	131	MPa	ASTM D 638
Tensile Strain, yield	1.7	%	ASTM D 638
Tensile Strain, break	1.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	11030	MPa	ASTM D 638
Flexural Stress	179	MPa	ASTM D 790
Flexural Modulus	8270	MPa	ASTM D 790
Tensile Stress, yield	126	MPa	ISO 527
Tensile Stress, break	126	MPa	ISO 527
Tensile Strain, yield	1.6	%	ISO 527
Tensile Strain, break	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	10210	MPa	ISO 527
Flexural Stress	186	MPa	ISO 178
Flexural Modulus	9000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1329	J/m	ASTM D 4812
Izod Impact, notched, 23°C	32	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	5	J	ASTM D 3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	24	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	256	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	238	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.48E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	2.52E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	6.4E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	2.6E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	253	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	233	°C	ISO 75/Af
Relative Temp Index, Elec (1)	65	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	65	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	65	°C	UL 746B
PHYSICAL			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.46	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.4	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.1	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.44	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.1	%	ISO 294
Density	1.46	g/cm³	ISO 1183
ELECTRICAL			
Surface Resistivity	1.E+02 – 1.E+06	Ohm	ASTM D 257
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-101282596	-	-
UL Yellow Card Link 2	E207780-103093587	-	-
UL Recognized, 94V-1 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	95 – 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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