LNP™ STAT-KON™ COMPOUND REL42

RCL-4042

DESCRIPTION

LNP STAT-KON REL42 is a compound based on Nylon 66 resin containing 20% PTFE, 10% Carbon Fiber. Added features of this material include: Electrically Conductive, Internally Lubricated.

TYPICAL PROPERTY VALUES

Revision 20200205

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	132	MPa	ASTM D 638
Tensile Stress, break	132	MPa	ASTM D 638
Tensile Strain, yield	2.5	%	ASTM D 638
Tensile Strain, break	2.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	8270	MPa	ASTM D 638
Flexural Stress	186	MPa	ASTM D 790
Flexural Modulus	14470	MPa	ASTM D 790
Tensile Stress, yield	133	MPa	ISO 527
Tensile Stress, break	133	MPa	ISO 527
Tensile Strain, yield	2.2	%	ISO 527
Tensile Strain, break	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	8690	MPa	ISO 527
Flexural Stress	186	MPa	ISO 178
Flexural Modulus	7400	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	443	J/m	ASTM D 4812
Izod Impact, notched, 23°C	42	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	8	J	ASTM D 3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	29	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	260	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	247	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.92E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	3.6E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.9E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.6E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	258	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	242	°C	ISO 75/Af
PHYSICAL			
Density	1.32	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.6	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.3 – 0.5	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	1.1 – 1.3	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.36	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.2	%	ISO 294
Density	1.32	g/cm³	ISO 1183
ELECTRICAL			
Surface Resistivity	1.E+02 – 1.E+06	Ohm	ASTM D 257
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	

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