LNP™ STAT-KON™ COMPOUND REL33

RCL-4033

DESCRIPTION

LNP STAT-KON* REL33 is a compound based on Nylon 66 resin containing 15% Carbon Fiber, 15% PTFE. Added features of this material include: Electrically Conductive, Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20191212

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	169	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	169	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.7	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	12520	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	237	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	237	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	8730	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	164	MPa	ISO 527
Tensile Stress, break, 5 mm/min	164	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.4	%	ISO 527
Tensile Strain, break, 5 mm/min	2.4	%	ISO 527
Tensile Modulus, 1 mm/min	11710	MPa	ISO 527
Flexural Stress	231	MPa	ISO 178
Flexural Modulus, 2 mm/min	8580	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	732	J/m	ASTM D 4812
Izod Impact, notched, 23°C	58	J/m	ASTM D 256
Multiaxial Impact	2	J	ISO 6603
Instrumented Impact Total Energy, 23°C	7	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	44	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	261	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	253	°C	ASTM D 648
CTE, -30°C to 30°C, flow	2.E-06	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	9.E-06	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	260	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	244	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.29	-	ASTM D 792
Density	1.3	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.61	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.3 – 0.6	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	0.8 – 1	%	ASTM D 955
Density	1.29	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.9	%	ISO 62
ELECTRICAL			
Surface Resistivity	1.E+01 – 1.E+04	Ohm	ASTM D 257
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	275 – 290	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	80 – 95	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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