LNP™ STAT-KON™ COMPOUND KEP33

KCL-4533

DESCRIPTION

LNP STAT-KON KEP33 compound is based on POM (Acetal) copolymer resin containing 15% carbon fiber, 15% PTFE/silicone. Added features of this grade include: Electrically Conductive, Wear Resistant.

GENERAL INFORMATION	
Features	Electrically Conductive, Wear resistant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber, PTFE/Silicone
Polymer Types	Acetal (POM) Copolymer
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	77	MPa	ASTM D638
Tensile Strain, break	1.1	%	ASTM D638
Tensile Modulus, 50 mm/min	10200	MPa	ASTM D638
Flexural Stress	114	MPa	ASTM D790
Flexural Modulus	7140	MPa	ASTM D790
Tensile Stress, break	74	MPa	ISO 527
Tensile Strain, break	1	%	ISO 527
Tensile Modulus, 1 mm/min	10170	MPa	ISO 527
Flexural Stress	106	MPa	ISO 178
Flexural Modulus	8270	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	128	J/m	ASTM D4812
Izod Impact, notched, 23°C	32	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	7	J	ASTM D3763
Multiaxial Impact	4	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	17	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	66	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	155	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.473	g/cm³	ASTM D792

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption, (23°C/50% RH/24 hrs)	0.21	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.4 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	0.4 – 0.6	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.7 – 0.9	%	ISO 294
Wear Factor Washer	202	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.36	-	ASTM D3702 Modified: Manual
Static COF	0.31	-	ASTM D3702 Modified: Manual
Density	1.46	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.32	%	ISO 62
ELECTRICAL [1]			
Volume Resistivity [3]	1.E+01 – 1.E+04	Ω.cm	ASTM D257
Surface Resistivity [3]	1.E+01 – 1.E+04	Ω	ASTM D257
INJECTION MOLDING [4]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	200 – 215	°C	
Front - Zone 3 Temperature	210 – 220	°C	
Middle - Zone 2 Temperature	195 – 205	°C	
Rear - Zone 1 Temperature	175 – 190	°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) 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.

(3) Measurement meets requirements as specified in ASTM D4496.

(4) 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