LNP™ STAT-KON™ COMPOUND OE006A

OC-1006

DESCRIPTION

LNP STAT-KON OE006A compound is based on Polyphenylene Sulfide (PPS) branched resin containing 30% carbon fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyphenylene Sulfide, Branched (PPS, Branched)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20241031

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	210	MPa	ASTM D638
Tensile Strain, break	1.1	%	ASTM D638
Tensile Modulus, 50 mm/min	32750	MPa	ASTM D638
Flexural Stress	304	MPa	ASTM D790
Flexural Modulus	23510	MPa	ASTM D790
Tensile Stress, break	204	MPa	ISO 527
Tensile Strain, break	1	%	ISO 527
Tensile Modulus, 1 mm/min	25450	MPa	ISO 527
Flexural Stress	311	MPa	ISO 178
Flexural Modulus	24720	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	437	J/m	ASTM D4812
Izod Impact, notched, 23°C	49	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	3	J	ASTM D3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	28	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL [1]			
CTE, -40°C to 40°C, flow	7.2E-06	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.96E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	8.7E-06	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.08E-05	1/°C	ISO 11359-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Relative Temp Index, Elec [2]	130	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	130	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	130	°C	UL 746B
PHYSICAL [1]			
Density	1.44	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.02	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [3]	0.1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.4	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	0.08	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.4	%	ISO 294
Wear Factor Washer	857	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	1.6	-	ASTM D3702 Modified: Manual
Static COF	1.38	-	ASTM D3702 Modified: Manual
Density	1.44	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62
ELECTRICAL [1]			
Surface Resistivity [4]	1.E+02 – 1.E+06	Ω	ASTM D257
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101284689	-	-
UL Recognized, 94V-0 Flame Class Rating	1	mm	UL 94
INJECTION MOLDING [5]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	315 – 340	°C	
Front - Zone 3 Temperature	330 – 345	°C	
Middle - Zone 2 Temperature	320 – 330	°C	
Rear - Zone 1 Temperature	305 – 315	°C	
Mold Temperature	140 – 165	°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) 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.

(3) 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.

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

(5) 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