LNP™ STAT-KON™ COMPOUND WEF42I

WCF-1006 HI

DESCRIPTION

LNP STAT-KON WEF42I compound is based on Polybutylene Terephthalate (PBT) resin containing 10% carbon fiber, 20% glass fiber. Added features of this grade include: High Impact, Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength, Impact resistant, No PFAS intentionally added
Fillers	Carbon Fiber, Glass Fiber
Polymer Types	Polybutylene Terephthalate (PBT)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20240711

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	94	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.7	%	ASTM D638
Tensile Modulus, 5 mm/min	21840	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	125	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	9990	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	99	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
Tensile Modulus, 1 mm/min	15830	MPa	ISO 527
Flexural Stress	169	MPa	ISO 178
Flexural Modulus, 2 mm/min	10520	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	710	J/m	ASTM D4812
Izod Impact, notched, 23°C	125	J/m	ASTM D256
Multiaxial Impact	4	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	16	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	219	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	205	°C	ASTM D648
CTE, -30°C to 30°C, flow	2.1E-05	1/°C	ASTM D696

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, xflow	1.34E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	220	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	203	°C	ISO 75/Af
PHYSICAL (1)			
Density	1.44	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs (2)	0.3 – 0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	1 – 3	%	ASTM D955
Density	1.44	g/cm³	ISO 1183
ELECTRICAL (1)			
Volume Resistivity (3)	1.E+04 – 1.E+06	Ω.cm	ASTM D257
Surface Resistivity (3)	1.E+02 – 1.E+05	Ω	ASTM D257
INJECTION MOLDING (4)			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 265	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	220 – 230	°C	
Mold Temperature	80 – 100	°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