LNP™ STAT-KON™ COMPOUND KE005

REGION EUROPE

DESCRIPTION

LNP STAT-KON KE005 compound is based on POM (Acetal) copolymer resin containing 25% carbon fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Applications	Document Handling, Monitoring and Imaging
Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Acetal (POM) Copolymer
Processing Techniques	Injection Molding
Regional Availability	Europe, Asia, Americas

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electrical Components and Infrastructure
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	100	MPa	ASTM D638
Tensile Strain, break	0.9	%	ASTM D638
Tensile Modulus, 5 mm/min	15500	MPa	ASTM D638
Flexural Stress	130	MPa	ASTM D790
Flexural Modulus	15000	MPa	ASTM D790
Tensile Stress, break	90	MPa	ISO 527
Tensile Strain, break	1.0	%	ISO 527
Tensile Modulus, 1 mm/min	13300	MPa	ISO 527
Flexural Stress	125	MPa	ISO 178
Flexural Modulus	15000	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	230	J/m	ASTM D4812
Izod Impact, notched, 23°C	170	J/m	ASTM D256
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	4.4	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	14	kJ/m²	ISO 179/1eU
Izod Impact, unnotched 80*10*4 +23°C	5.8	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	163	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	161	°C	ASTM D648

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	1.0E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.0E-04	1/°C	ASTM E831
Vicat Softening Temp, Rate A/120	164	°C	ASTM D1525
Vicat Softening Temp, Rate B/120	154	°C	ASTM D1525
CTE, -40°C to 40°C, flow	1.0E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.0E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	165	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	162	°C	ISO 75/Af
Vicat Softening Temp, Rate A/120	164	°C	ISO 306
Vicat Softening Temp, Rate B/120	154	°C	ISO 306
PHYSICAL (1)			
Density	1.46	g/cm³	ASTM D792
Water Absorption, (23°C/24hrs)	0.3 – 0.5	%	ASTM D570
Mold Shrinkage, xflow	0.9 – 1.1	%	SABIC method
Mold Shrinkage, flow	0.3 – 0.5	%	SABIC method
Melt Volume Rate, MVR at 190°C/5.0 kg	6 – 10	cm³/10 min	ISO 1133
Density	1.46	g/cm³	ISO 1183
ELECTRICAL (1)			
Surface Resistivity, ROA	1.0E+01 – 1.0E+03	Ω	IEC 60093
Surface Resistivity (2)	1.0E+01 – 1.0E+03	Ω	ASTM D257
INJECTION MOLDING (3)			
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) Measurement meets requirements as specified in ASTM D4496.

(3) 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.

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