LNP™ STAT-KON™ COMPOUND AE001

REGION EUROPE

DESCRIPTION

LNP STAT-KON AE001 compound is based on Acrylonitrile Butadiene Styrene (ABS) resin containing 7% 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	Acrylonitrile Butadiene Styrene (ABS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Hydrocarbon and Energy	Energy Storage
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20260326

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Modulus, 1 mm/min	5850	MPa	ISO 527
Tensile Stress, break, 5 mm/min	63	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.5	%	ISO 527
Flexural Modulus, 2 mm/min	5400	MPa	ISO 178
Flexural Strength, 2 mm/min	88	MPa	ISO 178
Flexural Modulus, 1.3 mm/min, 50 mm span	5630	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	89	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	25	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	15	kJ/m²	ISO 179/1eU
Izod Impact, notched, 23°C	60	J/m	ASTM D256
Izod Impact, unnotched, 23°C	198	J/m	ASTM D4812
THERMAL [1]			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	101	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	107	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/50	104	°C	ISO 306
Vicat Softening Temp, Rate B/120	105	°C	ISO 306
CTE, -40°C to 40°C, flow	3.3E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.06E-04	1/°C	ISO 11359-2

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	98	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	106	°C	ASTM D648
Vicat Softening Temp, Rate B/50	104	°C	ASTM D1525
Vicat Softening Temp, Rate B/120	105	°C	ASTM D1525
CTE, -40°C to 40°C, flow	3.3E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.06E-04	1/°C	ASTM E831
PHYSICAL (1)			
Density	1.07	g/cm³	ISO 1183
Moisture Absorption, (23°C/50% RH/24hrs)	0.03	%	ISO 62-4
Moisture Absorption, (23°C/50% RH/Equilibrium)	0.12	%	ISO 62-4
Water Absorption, (23°C/24hrs)	0.35	%	ISO 62-1
Water Absorption, (23°C/saturated)	0.85	%	ISO 62-1
Melt Volume Rate			
230°C/10.0 kg	13.5	cm³/10 min	ISO 1133
Mold Shrinkage, flow (2)	0.2 – 0.4	%	SABIC method
Mold Shrinkage, xflow (2)	0.2 – 0.4	%	SABIC method
ELECTRICAL (1)			
Surface Resistivity	1.E+03 – 1.E+06	Ω	ASTM D4496
Volume Resistivity	1.E+02 – 1.E+04	Ω.cm	ASTM D4496
INJECTION MOLDING (3)			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Drying Time (Cumulative)	12	Hrs	
Maximum Moisture Content	0.05 – 0.1	%	
Hopper Temperature	40	°C	
Melt Temperature	255 – 270	°C	
Rear - Zone 1 Temperature	220 – 240	°C	
Middle - Zone 2 Temperature	230 – 250	°C	
Front - Zone 3 Temperature	240 – 270	°C	
Nozzle Temperature	240 – 270	°C	
Mold Temperature	70 – 80	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw speed (Circumferential speed)	0.15 – 0.25	m/s	

(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) 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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