LNP™ STAT-KON™ COMPOUND KD000

K-

REGION ASIA

DESCRIPTION

LNP STAT-KON KD000 compound is based on POM (Acetal) copolymer resin containing conductive carbon powder. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, No PFAS intentionally added
Fillers	Carbon Powder
Polymer Types	Acetal (POM) Copolymer
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20241025

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	58	MPa	ASTM D638
Tensile Stress, break	54	MPa	ASTM D638
Tensile Strain, yield	3.6	%	ASTM D638
Tensile Strain, break	7.2	%	ASTM D638
Tensile Modulus, 50 mm/min	3500	MPa	ASTM D638
Flexural Stress	95	MPa	ASTM D790
Flexural Modulus	3250	MPa	ASTM D790
Tensile Stress, yield	53	MPa	ISO 527
Tensile Stress, break	47	MPa	ISO 527
Tensile Strain, yield	5	%	ISO 527
Tensile Strain, break	20	%	ISO 527
Tensile Modulus, 1 mm/min	3000	MPa	ISO 527
Flexural Stress	82	MPa	ISO 178
Flexural Modulus	3200	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	800	J/m	ASTM D4812
Izod Impact, notched, 23°C	35	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	5	J	ASTM D3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	37	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	108	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.01E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.01E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.02E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.01E-04	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	105	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.45	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.28	%	ASTM D570
Mold shrinkage, flow (mold temp=60°C) [2]	1.2 – 1.3	%	SABIC method
Mold shrinkage, flow (mold temp=100°C) [2]	1.5 – 1.6	%	SABIC method
Mold Shrinkage, flow, 24 hrs [2]	1.5 – 3.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1.5 – 3.5	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	1.5 – 3.5	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	1.5 – 3.5	%	ISO 294
Mold shrinkage, xflow (mold temp=60°C) [2]	0.9 – 1	%	SABIC method
Mold shrinkage, xflow (mold temp=100°C) [2]	1.1 – 1.2	%	SABIC method
Density	1.45	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.33	%	ISO 62
ELECTRICAL [1]			
Surface Resistivity [3]	1.E+02 – 1.E+04	Ω	ASTM D257
FLAME CHARACTERISTICS [4]			
UL Yellow Card Link	E207780-101343865	-	-
UL Yellow Card Link 2	E207780-102991911	-	-
UL Recognized, 94HB Flame Class Rating	0.7	mm	UL 94
INJECTION MOLDING [5]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	190 – 215	°C	
Front - Zone 3 Temperature	200 – 220	°C	
Middle - Zone 2 Temperature	190 – 200	°C	
Rear - Zone 1 Temperature	180 – 190	°C	
Mold Temperature	60 – 110	°C	
Back Pressure	0.2 – 0.4	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) 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.
(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.

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