LNP™ STAT-KON™ Compound DDF029

DF-FR

DESCRIPTION

LNP STAT-KON DDF029 compound is based on Polycarbonate (PC) resin containing conductive carbon powder and 10% glass fiber. Added features of this grade include: Electrically Conductive, Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, No PFAS intentionally added
Fillers	Carbon Powder, Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20250501

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	81	MPa	ASTM D638
Tensile Strain, break	2.9	%	ASTM D638
Tensile Modulus, 5 mm/min	4480	MPa	ASTM D638
Flexural Stress	132	MPa	ASTM D790
Flexural Modulus	4410	MPa	ASTM D790
Tensile Stress, break	81	MPa	ISO 527
Tensile Strain, break	2.8	%	ISO 527
Tensile Modulus, 1 mm/min	4600	MPa	ISO 527
Flexural Stress	134	MPa	ISO 178
Flexural Modulus	4800	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	443	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	7	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	32	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	141	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	135	°C	ASTM D648
CTE, -40°C to 40°C, flow	4.32E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.04E-05	1/°C	ASTM E831

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	4.43E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.19E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	135	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.37	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.11	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.5	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	0.44	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.49	%	ISO 294
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
ELECTRICAL [1]			
Surface Resistivity [3]	1.E+03 – 1.E+08	Ω	ASTM D257
FLAME CHARACTERISTICS			
UL Compliant, 94V-0 Flame Class Rating [4]	1.8	mm	UL 94 by SABIC-IP
INJECTION MOLDING [5]			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°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) 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 rating shown here is based on internal measurements.

(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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