

LNPTM STAT-KONTM COMPOUND ZE0039

ZC-1003 FR

DESCRIPTION

LNP STAT-KON ZE0039 compound is based on Polyphenylene Ether / Polystyrene (PPE/PS) blend containing 15% carbon fiber. Added features of this grade include: Electrically Conductive , Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	112	MPa	ASTM D638
Tensile Stress, break	112	MPa	ASTM D638
Tensile Strain, yield	1.2	%	ASTM D638
Tensile Strain, break	1.2	%	ASTM D638
Tensile Modulus, 50 mm/min	11720	MPa	ASTM D638
Flexural Stress	117	MPa	ASTM D790
Flexural Modulus	8960	MPa	ASTM D790
Tensile Stress, yield	105	MPa	ISO 527
Tensile Stress, break	105	MPa	ISO 527
Tensile Strain, yield	1.1	%	ISO 527
Tensile Strain, break	1.1	%	ISO 527
Tensile Modulus, 1 mm/min	10970	MPa	ISO 527
Flexural Stress	150	MPa	ISO 178
Flexural Modulus	10600	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	267	J/m	ASTM D4812
Izod Impact, notched, 23°C	48	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	11	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	18	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	112	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	103	°C	ASTM D648
CTE, -30°C to 30°C, flow	2.9E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	4.7E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	113	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	106	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.21	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.1 – 0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.2 – 0.4	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.09	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.3	%	ISO 294
Density	1.2	g/cm ³	ISO 1183
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽³⁾	1.E+02 – 1.E+04	Ω	ASTM D257
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Melt Temperature	300 – 305	°C	
Front - Zone 3 Temperature	300 – 310	°C	
Middle - Zone 2 Temperature	290 – 300	°C	
Rear - Zone 1 Temperature	275 – 290	°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) 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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