

LNPTTM STAT-KONTM COMPOUND PFG03EL

DESCRIPTION

LNP STAT-KON PFG03EL compound is based on Nylon 6 resin containing glass fiber and proprietary thermal filler. Added feature of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Conductive, Electrically Conductive, Food Contact Acceptable, No PFAS intentionally added
Fillers	Glass Fiber, Graphite
Polymer Types	Polyamide 6 (Nylon 6)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electrical Components and Infrastructure
Industrial	Industrial Material Handling
Industry	IndustrySegment
Packaging	Food & Beverage

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 1 mm/min	13000	MPa	ISO 527
Tensile Stress, break, 5 mm/min	100	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.3	%	ISO 527
Flexural Modulus, 2 mm/min	12250	MPa	ISO 178
Flexural Stress, break, 2 mm/min	140	MPa	ISO 178
Tensile Modulus, 5 mm/min	13000	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	80	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.1	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	12500	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	150	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	15	kJ/m ²	ISO 180/1U
Izod Impact, notched, 23°C	50	J/m	ASTM D256
Izod Impact, unnotched, 23°C	210	J/m	ASTM D4812
Charpy			
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	15	kJ/m ²	ISO 179/1eU
THERMAL ⁽¹⁾			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	208	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	215	°C	ISO 75/Bf

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	210	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	219	°C	ASTM D648
Vicat Softening Temp, Rate B/50	212	°C	ISO 306
Vicat Softening Temp, Rate B/120	209	°C	ISO 306
Vicat Softening Temp, Rate B/50	212	°C	ASTM D1525
Vicat Softening Temp, Rate B/120	209	°C	ASTM D1525
CTE, -40°C to 40°C, flow	1.8E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, flow	1.8E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	4.5E-05	1/°C	ASTM E831
PHYSICAL ⁽¹⁾			
Density	1.57	g/cm ³	ISO 1183
Moisture Absorption, (23°C/50% RH/24hrs)	0.05	%	ISO 62-4
Moisture Absorption, (23°C/50% RH/Equilibrium)	0.1	%	ISO 62-4
Water Absorption, (23°C/saturated)	0.4	%	ISO 62-1
Water Absorption, (23°C/24hrs)	2.1	%	ISO 62-1
Mold Shrinkage, flow ⁽²⁾	0.2 – 0.7	%	SABIC method
Mold Shrinkage, xflow ⁽²⁾	0.4 – 0.9	%	SABIC method
Specific Gravity	1.57	-	ASTM D792
Water Absorption, (23°C/Saturated)	0.4	%	ASTM D570
Water Absorption, (23°C/24hrs)	2.1	%	ASTM D570
ELECTRICAL ⁽¹⁾			
Volume Resistivity			
Volume Resistivity	1E+01 – 1E+03	Ω.cm	ANSI/ESD STM11.11
Volume Resistivity ⁽³⁾	1E+01 – 1E+03	Ω.cm	ASTM D257
Surface Resistivity	1E+04 – 1E+06	Ω	ANSI/ESD STM11.11
Surface Resistivity ⁽³⁾	1E+04 – 1E+06	Ω	ASTM D257
INJECTION MOLDING ⁽⁴⁾			
Maximum Moisture Content	0.15 – 0.25	%	
Drying Temperature	80 – 90	°C	
Drying Time	4 – 6	Hrs	
Melt Temperature	265 – 295	°C	
Nozzle Temperature	260 – 290	°C	
Front - Zone 3 Temperature	265 – 295	°C	
Middle - Zone 2 Temperature	255 – 285	°C	
Rear - Zone 1 Temperature	245 – 275	°C	
Mold Temperature	80 – 100	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw speed (Circumferential speed)	0.15 – 0.25	m/s	