LNP™ STAT-KON™ COMPOUND EX07311P

EX07311P (SER)

DESCRIPTION

LNP STAT-KON* EX07311P is an easy flowing ESD-safe compound based on Polyetherimide resin. This compound is developed for good dimensional stability for use in ESD Tray for Backend Semicon and HDD tray applications.

TYPICAL PROPERTY VALUES

Revision 20191212

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	175	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.1	%	ASTM D 638
Tensile Modulus, 5 mm/min	15000	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	200	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	11500	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	174	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	15200	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	203	MPa	ISO 178
Flexural Strain, break, 2 mm/min	1.7	%	ISO 178
Flexural Modulus, 2 mm/min	13200	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	56	J/m	ASTM D 256
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	202	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.9E-06	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.38E-05	1/°C	ASTM E 831
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	204	°C	ISO 75/Af
PHYSICAL			
Density	1.56	g/cm³	ASTM D 792
Mold Shrinkage, flow	0.29	%	SABIC method
Mold Shrinkage, xflow	0.36	%	SABIC method
Wear Factor Washer	20	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.4	-	ASTM D 3702 Modified: Manual
Density	1.56	g/cm³	ISO 1183
Melt Volume Rate, MVR at 345°C/10.0 kg	30	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	100000 – 1000000	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+05 – 1.E+06	Ohm	ASTM D 257
Surface Resistivity, ROA	1.E+05 – 1.E+06	Ohm	IEC 60093
INJECTION MOLDING			
Drying Temperature	150	°C	
Drying Time	4 – 6	hrs	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Time (Cumulative)	24	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	350 – 400	°C	
Nozzle Temperature	345 – 400	°C	
Front - Zone 3 Temperature	345 – 400	°C	
Middle - Zone 2 Temperature	340 – 400	°C	
Rear - Zone 1 Temperature	330 – 400	°C	
Mold Temperature	135 – 165	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

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