

LNPT[™] STAT-KON[™] COMPOUND ZD000XXR

DESCRIPTION

LNP STAT-KON ZD000XXR compound is based on Polyphenylene Ether/Polystyrene (PPE/PS) blend which is electrically conductive with improved toughness and reduced carbon sloughing. This is targeted for applications like IC trays and packaging for semi-conductor industry.

GENERAL INFORMATION

Features	Electrically Conductive, Low Warpage, Dimensional stability, No PFAS intentionally added
Fillers	Carbon Powder
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding

INDUSTRY

Industrial

SUB INDUSTRY

Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 50 mm/min	60.3	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	5.2	%	ASTM D638
Tensile Modulus, 50 mm/min	3195	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	107	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	3040	MPa	ASTM D790
Tensile Stress, break, 50 mm/min	59.1	MPa	ISO 527
Tensile Strain, break, 50 mm/min	4.86	%	ISO 527
Tensile Modulus, 1 mm/min	3077	MPa	ISO 527
Flexural Strength, 2 mm/min	107	MPa	ISO 178
Flexural Modulus, 2 mm/min	3245	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	77.5	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1020	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	6.68	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	43.91	kJ/m ²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	6.6	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	61.4	kJ/m ²	ISO 179/1eU
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	177	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	165	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	176	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	162	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	6.4E-5	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.6E-5	1/°C	ASTM E831

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CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	6.0E-5	1 / °C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.6E-5	1 / °C	ISO 11359-2
Vicat Softening Temp, Rate A/50	193	°C	ASTM D1525
Vicat Softening Temp, Rate B/50	182	°C	ISO 306
PHYSICAL ⁽¹⁾			
Specific Gravity	1.17	-	ASTM D792
Melt Volume Rate, MVR at 300°C/ 10.0 kg	7.57	cm ³ / 10 min	ISO 1133
Mold Shrinkage, flow ⁽²⁾	0.78	%	SABIC method
Mold Shrinkage, xflow ⁽²⁾	0.74	%	SABIC method
ELECTRICAL ⁽¹⁾			
Surface Resistivity	1.6E+6	Ω	ASTM D257
Volume Resistivity	7.2E+6	Ω.cm	ASTM D257
INJECTION MOLDING ⁽³⁾			
Drying Temperature	110 – 120	°C	
Drying Time	3 – 5	Hrs	
Melt Temperature	300 – 310	°C	
Nozzle Temperature	300 – 310	°C	
Front - Zone 3 Temperature	300 – 310	°C	
Middle - Zone 2 Temperature	300 – 310	°C	
Rear - Zone 1 Temperature	300 – 310	°C	
Mold Temperature	110 – 130	°C	
Back Pressure	0.1 – 0.3	MPa	
Screw Speed	90 – 110	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) 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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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