

LNPTM STAT-KONTM COMPOUND DD0009XP

D-FR REGION AMERICAS

DESCRIPTION

LNP STAT-KON DD0009XP compound is based on Polycarbonate (PC) resin containing conductive carbon powder. Added features of this grade include: Electrically Conductive, Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, No PFAS intentionally added
Fillers	Carbon Powder
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20240715

MECHANICAL (**) MPa ASTM D638 Tensile Stress, yld, Type I, 5 mm/min 46 MPa ASTM D638 Tensile Strain, yld, Type I, 5 mm/min 4.7 % ASTM D638 Tensile Strain, brk, Type I, 5 mm/min 13 % ASTM D638 Tensile Stress, yield, 5 mm/min 60 MPa ISO 527 Tensile Stress, break, 5 mm/min 50 MPa ISO 527 Tensile Strain, bred, 5 mm/min 1 % 50 527 Tensile Strain, break, 5 mm/min 1 % 50 527 Tensile Strain, break, 5 mm/min 1 % 50 527 Tensile Modulus, 1 mm/min 1 % 50 527 Flexural Modulus, 2 mm/min 250 MPa ISO 527 Elexural Modulus, 2 mm/min 450 MPa ISO 178 Impact, 10 mm/min 1 MPa ISO 178 Impact, 10 mm/min 1 4 50 527 Iso Impact, unnotched, 23°C 136 J/m ASTM D4812 Izo Impact, unnotched, 23°C 150 500 MPa <th< th=""><th>PROPERTIES</th><th>TYPICAL VALUES</th><th>UNITS</th><th>TEST METHODS</th></th<>	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tensile Strain, yld, Type I, 5 mm/min 46 MPa ASTM DG38 Tensile Strain, yld, Type I, 5 mm/min 47 % ASTM DG38 Tensile Strain, brk, Type I, 5 mm/min 13 % ASTM DG38 Tensile Strain, brk, Type I, 5 mm/min 60 MPa ISO 527 Tensile Strain, yleid, 5 mm/min 47 % ISO 527 Tensile Strain, preak, 5 mm/min 11 % ISO 527 Tensile Modulus, 1 mm/min 2500 MPa ISO 527 Fleural Modulus, 2 mm/min 2500 MPa ISO 527 Impact (") 3 ISO 178 Izod Impact, unnotched, 23°C 19/m ASTM D4812 Izod Impact, notched, 23°C 136 J/m ASTM D4812 Izod Impact, unnotched 80°10°4 +23°C 152 I/m ASTM D481 Izod Impact, unnotched 80°10°4 +23°C 152 I/m I/m ASTM D68 Itod Impact, otched 80°10°4 +23°C 9 I/m I/m D18/m I/m I/m I/m I/m I/m I/m I/m I/m	MECHANICAL (1)			
Tensile Strain, yld, Type I, 5 mm/min 4.7 % ASTM D638 Tensile Strain, brk, Type I, 5 mm/min 13 % ASTM D638 Tensile Stress, yield, 5 mm/min 60 MPa ISO 527 Tensile Stress, break, 5 mm/min 4.7 % ISO 527 Tensile Strain, yield, 5 mm/min 11 % ISO 527 Tensile Modulus, 1 mm/min 2500 MPa ISO 527 Flexual Modulus, 2 mm/min 2520 MPa ISO 178 Impact (¹¹) 1 1 2 1 Izod Impact, unnotched, 23°C 152 1/m ASTM D4812 Izod Impact, notched, 23°C 136 1/m ASTM D56 Izod Impact, unnotched 80°10°4 +23°C 152 1/m ASTM D56 Izod Impact, unnotched 80°10°4 +23°C 152 1/m Iso 180/14 Izod Impact, unnotched 80°10°4 +23°C 9 1/m ASTM D648 Iton, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 132 °C ASTM D648	Tensile Stress, yld, Type I, 5 mm/min	69	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min 13 % ASTM D638 Tensile Stress, yield, 5 mm/min 60 MPa ISO 527 Tensile Stress, break, 5 mm/min 50 MPa ISO 527 Tensile Strain, yield, 5 mm/min 4.7 % SO 527 Tensile Strain, break, 5 mm/min 11 % SO 527 Tensile Modulus, 1 mm/min 2500 MPa ISO 527 Flexural Modulus, 2 mm/min 2500 MPa ISO 178 Impact Jm ASTM D4812 SO 527 Itensile Modulus, 2 mm/min 1625 Jm ASTM D4812 Itensile Modulus, 2 mm/min 136 Jm ASTM D4812 Itensile Modulus, 2 mm/min 136 Jm ASTM D4812 Itensile Strain, yield, 5 mm/min 136 Jm ASTM D4812 Itensile Strain, yield, 5 mm/min 132 Min Mpa ASTM D4812 Itensile Strain, yield, 5 mm/min 132 Mpa ASTM D4812 Mpa Itensile Strain, yield, 6 mm/min 132 Mpa Mpa Mpa <td>Tensile Stress, brk, Type I, 5 mm/min</td> <td>46</td> <td>MPa</td> <td>ASTM D638</td>	Tensile Stress, brk, Type I, 5 mm/min	46	MPa	ASTM D638
Tensile Stress, yield, 5 mm/min 60 MPa ISO 527 Tensile Stress, break, 5 mm/min 50 MPa ISO 527 Tensile Strain, yield, 5 mm/min 4.7 % ISO 527 Tensile Strain, break, 5 mm/min 11 % ISO 527 Tensile Modulus, 1 mm/min 2500 MPa ISO 527 Tensile Modulus, 2 mm/min 2500 MPa ISO 178 IMPACT (**) ** ISO 178 Izod Impact, unnotched, 23°C 1625 J/m ASTM D4812 Izod Impact, notched, 23°C 136 J/m ASTM D256 Multiaxial Impact 33 36 I/m ISO 180/10 Izod Impact, unnotched 80*10*4+23°C 152 I/m I/m ISO 180/10 Izod Impact, otched 80*10*4+23°C 9 I/m ASTM D481 THERMAL (**) ** ** ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 140 ** C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 130 ** C ASTM D648	Tensile Strain, yld, Type I, 5 mm/min	4.7	%	ASTM D638
Tensile Stress, break, 5 mm/min 50 MPa ISO 527 Tensile Strain, yield, 5 mm/min 4.7 % ISO 527 Tensile Strain, break, 5 mm/min 11 % ISO 527 Tensile Modulus, 1 mm/min 2500 MPa ISO 527 Flexural Modulus, 2 mm/min 2520 MPa ISO 178 IMPACT ⁽¹⁾ Umback, unnotched, 23°C J/m ASTM D4812 Izod Impact, unnotched, 23°C 136 J/m ASTM D256 Multiaxial Impact 33 J ISO 6603 Izod Impact, unnotched 80*10*4 + 23°C 152 kl/m² ISO 180/10 Izod Impact, notched 80*10*4 + 23°C 9 kl/m² ISO 180/10 IteRMAL (¹) L SO 180/10 ME THERMAL (¹) C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 139 °C ASTM D648	Tensile Strain, brk, Type I, 5 mm/min	13	%	ASTM D638
Tensile Strain, yield, 5 mm/min 4.7 \$ ISO 527 Tensile Strain, break, 5 mm/min 1 % ISO 527 Tensile Modulus, 1 mm/min 2500 MPa ISO 527 Flexural Modulus, 2 mm/min 2520 MPa ISO 178 IMPACT (1) V V V Izod Impact, unnotched, 23°C 152 J/m ASTM D4812 Izod Impact, unnotched 80°10°4 +23°C 33 J ISO 6603 Izod Impact, unnotched 80°10°4 +23°C 52 kJ/m² ISO 180/1U Izod Impact, notched 80°10°4 +23°C 9 kJ/m² ISO 180/1U IterMAL (1) L KJ/m² ISO 180/1U THERMAL (1) X ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 139 °C ASTM D648	Tensile Stress, yield, 5 mm/min	60	MPa	ISO 527
Tensile Strain, break, 5 mm/min 11 % ISO 527 Tensile Modulus, 1 mm/min 2500 MPa ISO 527 Flexural Modulus, 2 mm/min 2520 MPa ISO 178 IMPACT (1) V V ASTM D4812 Izod Impact, unnotched, 23°C 156 J/m ASTM D256 Multiaxial Impact 33 J/m ASTM D256 Izod Impact, unnotched 80°10°4 + 23°C 152 I/m² ISO 180/10 Izod Impact, notched 80°10°4 + 23°C 9 I/m² ISO 180/1A THERMAL (1) Y SO 180/1A THERMAL (1) HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 139 °C ASTM D648	Tensile Stress, break, 5 mm/min	50	MPa	ISO 527
Tensile Modulus, 1 mm/min 2500 MPa ISO 527 Flexural Modulus, 2 mm/min 2520 MPa ISO 178 IMPACT (¹) V V V Izod Impact, unnotched, 23°C 136 J/m ASTM D256 Multiaxial Impact 33 J ISO 6603 Izod Impact, unnotched 80°10°4 + 23°C 152 kJ/m² ISO 180/1U Itoel Impact, notched 80°10°4 + 23°C 9 kJ/m² ISO 180/1A THERMAL (¹) V ISO 180/1A THERMAL (¹) HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 139 °C ISO 75/Bf	Tensile Strain, yield, 5 mm/min	4.7	%	ISO 527
Flexural Modulus, 2 mm/min 2520 MPa ISO 178 IMPACT (1) Izod Impact, unnotched, 23°C 1625 J/m ASTM D4812 Izod Impact, notched, 23°C 136 J/m ASTM D256 Multiaxial Impact 33 J/m ASTM D256 Izod Impact, unnotched 80*10*4 +23°C 152 SO 180/10 Izod Impact, notched 80*10*4 +23°C 152 SO 180/10 Izod Impact, notched 80*10*4 +23°C 150 SO 180/10 ItemMal (1) HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 132 °C ISO 75/Bf	Tensile Strain, break, 5 mm/min	11	%	ISO 527
IMPACT (¹) Izod Impact, unnotched, 23°C 1625 1/m ASTM D4812 Izod Impact, notched, 23°C 136 1/m ASTM D256 Multiaxial Impact 33 1 ISO 6603 Izod Impact, unnotched 80*10*4 + 23°C 152 kl/m² ISO 180/10 Izod Impact, notched 80*10*4 + 23°C 9 kl/m² ISO 180/1A THERMAL (¹) ** ** ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 140 **<	Tensile Modulus, 1 mm/min	2500	MPa	ISO 527
Izod Impact, unnotched, 23°C 1625 J/m ASTM D4812 Izod Impact, notched, 23°C 136 J/m ASTM D256 Multiaxial Impact 33 J ISO 6603 Izod Impact, unnotched 80°10°4 +23°C 152 kJ/m² ISO 180/1U Izod Impact, notched 80°10°4 +23°C 9 kJ/m² ISO 180/1A THERMAL ⁽¹⁾ ** ** ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 140 ** ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 ** C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 139 ** C ISO 75/Bf	Flexural Modulus, 2 mm/min	2520	MPa	ISO 178
Izod Impact, notched, 23°C 136 J/m ASTM D256 Multiaxial Impact 33 J ISO 6603 Izod Impact, unnotched 80*10*4+23°C 152 kJ/m² ISO 180/10 Izod Impact, notched 80*10*4+23°C 9 kJ/m² ISO 180/1A HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 139 °C ISO 75/Bf	IMPACT (1)			
Multiaxial Impact J ISO 6603 Izod Impact, unnotched 80°10°4 +23°C J ISO 180/1U Izod Impact, notched 80°10°4 +23°C 9 Iz/m² ISO 180/1A THERMAL ⁽¹⁾ HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 139 °C ISO 75/Bf	Izod Impact, unnotched, 23°C	1625	J/m	ASTM D4812
Izod Impact, unnotched 80*10*4 +23°C 152 KJ/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 9 kJ/m² ISO 180/1A THERMAL (¹) HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 139 °C ISO 75/Bf	Izod Impact, notched, 23°C	136	J/m	ASTM D256
Izod Impact, notched 80°10°4 +23°C 9 kJ/m² ISO 180/1A THERMAL ⁽¹⁾ HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 139 °C ISO 75/Bf	Multiaxial Impact	33	J	ISO 6603
THERMAL (1) HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 139 °C ISO 75/Bf	Izod Impact, unnotched 80*10*4 +23°C	152	kJ/m²	ISO 180/1U
HDT, 0.45 MPa, 3.2 mm, unannealed 140 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 139 °C ISO 75/Bf	Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
HDT, 1.82 MPa, 3.2mm, unannealed 132 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 139 °C ISO 75/Bf	THERMAL (1)			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 139 °C ISO 75/Bf	HDT, 0.45 MPa, 3.2 mm, unannealed	140	°C	ASTM D648
	HDT, 1.82 MPa, 3.2mm, unannealed	132	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 131 °C ISO 75/Af	HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Bf
·	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	131	°C	ISO 75/Af



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Relative Temp Index, Elec ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/impact (2)	80	°C	UL 746B
Relative Temp Index, Mech w/o impact (2)	80	°C	UL 746B
PHYSICAL (1)			
Density	1.3	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.13	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.5 – 0.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.6 - 0.8	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.21	%	ISO 62
ELECTRICAL (1)			
Surface Resistivity (4)	1.E+05 – 1.E+10	Ω	ASTM D257
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E121562-101283903	-	-
UL Recognized, 94V-0 Flame Class Rating	1.7	mm	UL 94
INJECTION MOLDING (5)			
Drying Temperature	80	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	255 – 290	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	255 – 265	°C	
Rear - Zone 1 Temperature	250 – 260	°C	
Mold Temperature	40 – 65	°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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (3) 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.
- (4) Measurement meets requirements as specified in ASTM D4496.
- (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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