

## LNPTM THERMOCOMPTM COMPOUND MF006SXP

MFX-1006 REGION AMERICAS

## **DESCRIPTION**

LNP THERMOCOMP MF006SXP compound is based on Polypropylene (PP) resin containing 30% glass fiber. Added features of this grade include: Heat Stabilized.

GENERAL INFORMATION	
Features	Heat Stabilized, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polypropylene, Unspecified (PP, Unspecified)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Sport/Leisure, Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

## **TYPICAL PROPERTY VALUES**

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL (1)			
Tensile Stress, break	88	MPa	ASTM D638
Tensile Strain, break	3	%	ASTM D638
Tensile Modulus, 50 mm/min	7300	MPa	ASTM D638
Flexural Stress	139	MPa	ASTM D790
Flexural modulus	6200	MPa	ASTM D790
Tensile Stress, break	91	MPa	ISO 527
Tensile Strain, break	3.2	%	ISO 527
Tensile Modulus, 1 mm/min	7600	MPa	ISO 527
Flexural Stress	159	MPa	ISO 178
Flexural Modulus	8700	MPa	ISO 178
IMPACT (1)			
Izod Impact, unnotched, 23°C	704	J/m	ASTM D4812
Izod Impact, notched, 23°C	117	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	3	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A
THERMAL (1)			
HDT, 0.45 MPa, 3.2 mm, unannealed	160	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	150	°C	ASTM D648



PRODERIES         TYPICAL VALUES         UNITS         EST METHODS           CTE. 40°C to 40°C, 160°         2.64e 05         1/°C         AST MES31           CTE. 40°C to 40°C, 160°         2.64e 05         1/°C         AST MES31           CTE. 40°C to 40°C, 160°         2.64e 05         1/°C         101389-2           CTE. 40°C to 40°C, 160°         2.60e 05         1/°C         101389-2           CTE. 40°C to 40°C, 160°         2.60e 05         1°C         107466           CTE. 40°C to 40°C, 160°         2.60e 05         1°C         107466           CTE. 40°C to 40°C, 160°         2.60e 05         1°C         107466           CTE. 40°C to 40°C, 160°         2.60e 05         10.7466           Relative Temp Index Mech (w) (impact 10°)         65         0°C         10.7466           Relative Temp Index Mech (w) (impact 10°)         65         0°C         10.7466           Relative Temp Index Mech (w) (impact 10°)         0.02         3°Cm²         10.7466           Relative Temp Index Mech (w) (impact 10°)         0.02         3°Cm²         10.7460           Mold Shrinsage, 40x (24 hr. 60°)         0.02         3°Cm²         10.7460           Mold Shrinsage, 410w, 24 hr. 60°         0.36         3°C         10.7460				
CTE. 40°C to 40°C, falow         5.97E05         1/°C         ASTM E831           CTE. 40°C to 40°C, falow         2.64E05         1/°C         S011359-2           CTE. 40°C to 40°C, falow         5.98E03         1/°C         S011359-2           CTE. 40°C to 40°C, falow         152         °C         S075/AI           Relative Temp Index, Beth will planet (°I)         65         °C         UL 7468           Relative Temp Index, Mech will planet (°I)         65         °C         UL 7468           Relative Temp Index, Mech will planet (°I)         65         °C         UL 7468           Relative Temp Index, Mech will planet (°I)         65         °C         UL 7468           Relative Temp Index, Mech will planet (°I)         65         °C         UL 7468           Relative Temp Index, Mech will planet (°I)         50         %         ASTM D95           Mold Shrinkage, flow, 24 hrs (°I)         1.13         %         ASTM D95           Mold Shrinkage, flow, 24 hrs (°I)         0.6         %         50.24           Mold Shrinkage, flow, 24 hrs (°I)         0.9         %         50.24           Mold Shrinkage, flow, 24 hrs (°I)         0.0         %         50.62           ELECTRICAL (°I)         UL 746A         V.         V.	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, 40°C to 40°C, flow         2,64E-55         1/°C         S0 1359-2           CTE, 40°C to 40°C, vflow         5,98-63         1/°C         80139-2           CTE, 40°C to 40°C, vflow         5,98-63         1/°C         8075//r           Relative Temp Index, Riete 10°         65         °C         0.17468           Relative Temp Index, Mech w/Impact 10°         65         °C         0.17468           Relative Temp Index, Mech w/Impact 10°         55         °C         0.17468           Relative Temp Index, Mech w/Impact 10°         55         °C         0.17468           Relative Temp Index, Mech w/Impact 10°         55         °C         0.17468           Relative Temp Index, Mech w/Impact 10°         1.33         %         ASTIM 0570           Mold Shrinkage, Mow, 24 hrs 10°         0.02         %         ASTIM 0570           Mold Shrinkage, Mow, 24 hrs 10°         0.5         %         ASTIM 0595           Mold Shrinkage, Mow, 24 hrs 10°         0.96         %         X         X50294           Mold Shrinkage, Mow, 24 hrs 10°         0.96         %         X50294         X5118           Mold Shrinkage, Mlow, 24 hrs 10°         0.96         %         X50294         X5118         X50294         X50294         X50294	CTE, -40°C to 40°C, flow	2.64E-05	1/°C	ASTM E831
CTE, 40°C to 40°C, stow         5,98-05         1/°C         ISO 75/IA           HDT/IA, 1.8 MPa Flatw 80°10°4 sps-64mm         152         °C         ISO 75/IA           Relative Temp Index, Relac (Plc)         65         °C         UL 746B           Relative Temp Index, Mech w/n Impact (°)         65         °C         UL 746B           PHYSICAL (°)         "C         UL 746B           Mold Shrinkage, Mow, 24 hrs (°)         0.02         %         ASTM D95           Mold Shrinkage, Arlow, 24 hrs (°)         0.5         %         SC 294           Mold Shrinkage, Arlow, 24 hrs (°)         0.96         %         ISC 294           Mold Shrinkage, Arlow, 24 hrs (°)         0.99         %         ISC 294           Mold Shrinkage, Arlow, 24 hrs (°)         0.3         %         ISC 294           Mold Shrinkage, Arlow, 24 hrs (°)         1.3         (m         UL 746A           Mold Shrinkage, Arlow, 24 hrs (°)         1.3         (m         U	CTE, -40°C to 40°C, xflow	5.97E-05	1/°C	ASTM E831
HDT/AL 1.8 MPa Flatuw 80°10°4 sp-64mm         152         °C         IST 75/M           Relative Temp Index, Elec <sup>(1)</sup> 65         °C         U.7 468           Relative Temp Index, Mech w/Impact <sup>(2)</sup> 65         °C         U.7 468           Relative Temp Index, Mech w/Impact <sup>(2)</sup> 65         °C         U.7 468           PHYSICAL (**)           Use sity         1.13         JCm²         ASTM D95           Molds Phrinkage, How, 24 hrs <sup>(3)</sup> 0.5         %         ASTM D955           Mold Shrinkage, How, 24 hrs <sup>(3)</sup> 0.5         %         ASTM D955           Mold Shrinkage, How, 24 hrs <sup>(3)</sup> 0.96         %         150 294           Mold Shrinkage, How, 24 hrs <sup>(3)</sup> 0.96         %         150 294           Mold Shrinkage, How, 24 hrs <sup>(3)</sup> 0.96         %         150 294           Mold Shrinkage, How, 24 hrs <sup>(3)</sup> 0.9         %         150 294           Mold Shrinkage, How, 24 hrs <sup>(3)</sup> 0.0         %         150 294           Mold Shrinkage, Aflow, 24 hrs <sup>(3)</sup> 0.0         %         150 294           Mold Shrinkage, Aflow, 24 hrs <sup>(3)</sup> 0.0         %         10 20 294           Moltsture Absorption (23°C J 50% Rt)	CTE, -40°C to 40°C, flow	2.64E-05	1/°C	ISO 11359-2
Relative Temp Index, Iden (w) [march (°)]         65         °C         U.7468           Relative Temp Index, Mech w) [march (°)]         65         °C         U.7468           Relative Temp Index, Mech w) [march (°)]         55         °C         U.7468           Physical (°)         U.7468         V.7468         V.7468           Boilty (°)         1.13         g. (°)         ASTM D570           Molosthrikage, flow, 24 hrs (°)         0.02         %         ASTM D570           Mold Shrinkage, flow, 24 hrs (°)         1.3         %         ASTM D550           Mold Shrinkage, flow, 24 hrs (°)         0.5         %         ASTM D55           Mold Shrinkage, flow, 24 hrs (°)         0.96         %         No.294           Molosthrikage, flow, 24 hrs (°)         0.96         Q         V.766           Boshibatin (astr) (a	CTE, -40°C to 40°C, xflow	5.98E-05	1/°C	ISO 11359-2
Relative Temp Index, Mech w/n impact (2)         65         °C         U,7468           Relative Temp Index, Mech w/n impact (2)         65         °C         U,7468           PHYSICAL (1)         V         U         7468           PHYSICAL (1)         V         ASTM D792           Boilsture Absorption (22°C/50% RH/24 hrs)         0.02         \$         ASTM D795           Mold Shrinkage, flow, 24 hrs (3)         0.5         \$         ASTM D955           Mold Shrinkage, xflow, 24 hrs (1)         0.5         \$         \$         \$50.294           Mold Shrinkage, xflow, 24 hrs (1)         0.96         \$         \$50.294           Mold Shrinkage, xflow, 24 hrs (1)         0.96         \$         \$50.294           Mold Shrinkage, xflow, 24 hrs (1)         0.96         \$         \$50.294           Mold Shrinkage, xflow, 24 hrs (1)         0.3         \$         \$50.294           Mold Shrinkage, xflow, 24 hrs (1)         0.0         \$         \$         \$50.294           Mold Shrinkage, xflow, 24 hrs (1)         0.0         0.0         \$         \$         \$           Mold Shrinkage, xflow, 24 hrs (1)         0.0         0.0         \$         \$         \$           ELECTRICAL (1)         0.0         0.0		152	°C	ISO 75/Af
Relative Temp Index, Mecha y Indipact (PI)         65         "C Possiba"         Unitable (PI)           Density         1.3         3cm of page (PI)         ASTM D792           Mold Shrinkage, flow, 24 hrs (PI)         0.2         \$ astm D576           Mold Shrinkage, flow, 24 hrs (PI)         1.3         \$ astm D955           Mold Shrinkage, xflow, 24 hrs (PI)         0.5         \$ astm D576           Mold Shrinkage, xflow, 24 hrs (PI)         0.96         \$ astm D576           Mold Shrinkage, xflow, 24 hrs (PI)         0.96         \$ astm D576           Mold Shrinkage, xflow, 24 hrs (PI)         0.96         \$ astm D576           Mold Shrinkage, xflow, 24 hrs (PI)         0.96         \$ astm D576           Mold Shrinkage, xflow, 24 hrs (PI)         0.96         \$ astm D576           Mold Shrinkage, xflow, 24 hrs (PI)         0.96         \$ astm D576           Mold Shrinkage, xflow, 24 hrs (PI)         0.96         PLCOde         U.746A           Mold Shrinkage, xflow, 24 hrs (PI)         2         PLCOde         U.746A           How Wire Ignition (HWI), PLC 2         2         1         U.746A           High Amp Arc Ignition (HWI), PLC 3         2         1         U.746A           High Amp Arc Ignition (HWI), PLC 3         1         U.746A	Relative Temp Index, Elec (2)	65	°C	UL 746B
PersisCAL <sup>(1)</sup> Density         1.13         g/cm³         ASTM D792           Moisture Absorption, (23°C/50% RH/24 hrs)         0.02         %         ASTM D955           Mold Shrinkage, flow, 24 hrs <sup>(1)</sup> 1         %         ASTM D955           Mold Shrinkage, flow, 24 hrs <sup>(1)</sup> 0.5         %         ASTM D955           Mold Shrinkage, flow, 24 hrs <sup>(1)</sup> 0.5         %         \$0.294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.96         %         \$0.294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.96         %         \$0.294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.96         %         \$0.294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.96         %         \$0.294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.96         %         \$0.294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.96         %         \$0.294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.06         %         \$0.294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.08         \$0.20         \$0.20           Molsture Absorption (23°C J Sow RH)         0.08         \$0.20         \$0.20           But Statistic (1)         1.09	Relative Temp Index, Mech w/impact (2)	65	°C	UL 746B
Density         1.13         g/cm²         ASTM D792           Moistre Absorption, (23°C/50% RH/24 hrs)         0.02         %         ASTM D576           Mold Shrinkage, flow, 24 hrs (3)         1         %         ASTM D955           Mold Shrinkage, flow, 24 hrs (3)         0.5         %         ASTM D955           Mold Shrinkage, xflow, 24 hrs (3)         0.5         %         \$05 294           Mold Shrinkage, xflow, 24 hrs (3)         0.96         %         \$05 294           Mold Shrinkage, xflow, 24 hrs (3)         0.96         %         \$05 294           Mold Shrinkage, xflow, 24 hrs (3)         0.96         %         \$05 294           Mold Shrinkage, xflow, 24 hrs (3)         0.96         %         \$05 294           Mold Shrinkage, xflow, 24 hrs (3)         0.96         %         \$05 294           Mold Shrinkage, xflow, 24 hrs (3)         0.96         %         \$05 294           Mold Shrinkage, xflow, 24 hrs (3)         0.09         %         \$05 294           Mold Shrinkage, xflow, 24 hrs (1)         0.09         %         \$05 294           But Carlot         1.13         9         1.746A           Hot-Wire Ignition (HWI), PLC 2         2.1         1.746A         1.746A           High Amp Arc Ignitio	Relative Temp Index, Mech w/o impact (2)	65	°C	UL 746B
Moisture Absorption, (23°C/50% RH/24 hrs)         0.02         %         ASTM D570           Mold Shrinkage, flow, 24 hrs <sup>(1)</sup> 0.5         %         ASTM D955           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.5         %         ASTM D955           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.5         %         150 294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.96         %         150 294           Density         1.13         g/cm³         150 183           Moisture Absorption (23°C / 50% RH)         0.03         %         150 62           ELECTRICAL <sup>(1)</sup> V         LC Code         UL 746A           Hot-Wire Ignition (HWI), PLC 2         23         mm         UL 746A           Hot-Wire Ignition (HWI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HMI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HMI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HMI), PLC 3         ≥1         PLC Code         U. 746A           High Amp Arc Ignition (HMI), PLC 3         ≥1         PLC Code         U. 746A           Light Young Arc Ignition (HMI), PLC 3         ≥1         PLC Code         U. 746A <tr< td=""><td>PHYSICAL (1)</td><td></td><td></td><td></td></tr<>	PHYSICAL (1)			
Mold Shrinkage, rilow, 24 hrs <sup>(1)</sup> 0.5         % ASTM D955           Mold Shrinkage, xilow, 24 hrs <sup>(1)</sup> 0.5         % BS 0.294           Mold Shrinkage, xilow, 24 hrs <sup>(1)</sup> 0.96         % BS 0.294           Density         1.13         g/cm²         ISO 183           Moisture Absorption (23°C / 50% RH)         0.03         % BS 0.62         SECTRICAL (1)           ELECTRICAL (1)         U. 746A         MIT 0.46         MIT 0.46           Hot-Wire Ignition (HWI), PLC 2         23         mm         U. 746A           High Amp Arc Ignition (HWI), PLC 3         ≥ 1.5         mm         U. 746A           High Amp Arc Ignition (HAI), PLC 3         ≥ 1.5         mm         U. 746A           High Amp Arc Ignition (HAI), PLC 3         ≥ 1.         mm         U. 746A           High Amp Arc Ignition (HAI), PLC 3         ≥ 1.         mm         U. 746A           Arc Resistance, Tungsten (PLC)         1         PLC Code         U. 746A           MILE CHARACTERISTICS (2)         2         Code         ASTM D495           U. Recognized, 94HB Flame Class Rating         ≥ 1         MIT 0.4         MIT 0.4           Diving Time         4         MIT 0.4         MIT 0.4         MIT 0.4         MIT 0.4         MIT 0.4	Density	1.13	g/cm³	ASTM D792
Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 1         %         ASTM D955           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.5         %         ISO 294           Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.96         %         ISO 294           Density         1.13         g/cm³         ISO 294           Moisture Absorption (23°C / 50% RH)         0.03         %         ISO 294           Moisture Absorption (23°C / 50% RH)         0.03         PC Code         IU. 746A           HOt-Wire Ignition (HWI), PLC 2         ≥3         mm         UL 746A           Hot-Wire Ignition (HWI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HWI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HWI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HWI), PLC 3         ≥1         Mm         UL 746A           Arc Resistance, Tungsten (PLC)         1         PLC Code         UL 746A           Arc Resistance, Tungsten (PLC)         1         PLC Code         UL 746A           UL Vellow Card Link         2         L         Mm         UL 94           UL Vellow Card Link         2         L         Mm         UL 94	Moisture Absorption, (23°C/50% RH/24 hrs)	0.02	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (³)         0.5         %         ISO 294           Mold Shrinkage, xflow, 24 hrs (³)         0.96         %         ISO 294           Density         1.13         g/cm³         ISO 1183           Moistre Absorption (23°C / 50% RH)         0.03         %         ISO 62           ELECTRICAL (¹)         ***         IV 46A           Comparative Tracking Index (UL) (PLC)         0         PLC Code         UL 746A           Hot-Wire Ignition (HWI), PLC 2         23         mm         UL 746A           Hot-Wire Ignition (HWI), PLC 3         21         mm         UL 746A           High Amp Arc Ignition (HAI), PLC 3         21         mm         UL 746A           High Voltage Arc Track Rate (PLC)         1         PLC Code         UL 746A           High Voltage Arc Track Rate (PLC)         1         PLC Code         UL 746A           Arc Resistance, Tungsten (PLC)         1         PLC Code         UL 746A           UL vellow Card Link         FL21562-101283897         •         •           UL vellow Card Link         FL21562-101283897         •         •           UL vellow Card Link         4         High         •           Universitive (Marcian Link)         •         •	Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(1)</sup> 0.96         %         ISO 294           Density         1.13         g/cm³         ISO 183           Moisture Absorption (23°C / 50% RH)         0.03         %         ISO 62           ELECTRICAL <sup>(1)</sup> V         V         V         V         C           PLC CODE         UL 746A         M         UL 746A         M         M         M         46A         M         M         UL 746A         M         M         M         46A         M         M         46A         M         M         46A         M         46A         M         M         4         M         4         M         4         M         4         M         4         M         4         M         4         M         4	Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	1	%	ASTM D955
Density         1.13         g/cm³         ISO 183           Moisture Absorption (23°C / 50°R H)         0.03         %         ISO 62           ELECTRICAL <sup>(1)</sup> V         V         V         V         V         V         AGA         BCL         C         C         C         ELECTRICAL <sup>(1)</sup> V         V         C         W         V         C	Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	0.5	%	ISO 294
Moisture Absorption (23°C / 50% RH)         0.03         %         ISO 62           ELECTRICAL (¹¹)         V         V         V         Comparative Tracking Index (UL) {PLC}         0         PLC Code         UL 746A         UL 746A         Hot-Wire Ignition (HWI), PLC 2         ≥3         mm         UL 746A         Hot-Wire Ignition (HWI), PLC 3         ≥1         mm         UL 746A         High Amp Arc Ignition (HAI), PLC 3         ≥1         mm         UL 746A         High Amp Arc Ignition (HAI), PLC 3         ≥1         mm         UL 746A         High Amp Arc Ignition (HAI), PLC 3         ≥1         mm         UL 746A         High Amp Arc Ignition (HAI), PLC 3         ≥1         mm         UL 746A         High Amp Arc Ignition (HAI), PLC 3         ≥1         mm         UL 746A         PLC Code         UL 746A         PLC Code         UL 746A         PLC Code         UL 746A         PLC Code         ASTM D495	Mold Shrinkage, xflow, 24 hrs (3)	0.96	%	ISO 294
ELECTRICAL (**)           Comparative Tracking Index (UL) (PLC)         0         PLC Code         UL 746A           Hot-Wire Ignition (HWI), PLC 2         ≥3         mm         UL 746A           Hot-Wire Ignition (HWI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HAI), PLC 1         ≥1.5         mm         UL 746A           High Amp Arc Ignition (HAI), PLC 3         ≥1         mm         UL 746A           High Voltage Arc Track Rate (PLC)         1         PLC Code         UL 746A           Arc Resistance, Tungsten (PLC)         6         PLC Code         U. 746A           Arc Resistance, Tungsten (PLC)         5         vector         STM D495           UL Yellow Card Link         £121562-101283897         ∞         C           UL Recognized, 94HB Flame Class Rating         ≥1         mm         UL 94           INJECTION MOLDING (**)         UL 94         *         *           Drying Time         4         His         *           Melt Temperature         225 – 250         *C         *           Front - Zone 3 Temperature         240 – 250         *C         *           Middle - Zone 2 Temperature         240 – 250         *C         *	Density	1.13	g/cm³	ISO 1183
Comparative Tracking Index (UL) (PLC)         0         PLC Code         UL 746A           Hot-Wire Ignition (HWI), PLC 2         ≥3         mm         UL 746A           Hot-Wire Ignition (HWI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HAI), PLC 1         ≥1.5         mm         UL 746A           High Amp Arc Ignition (HAI), PLC 3         ≥1         mm         UL 746A           High Voltage Arc Track Rate (PLC)         1         PLC Code         UL 746A           Arc Resistance, Tungsten (PLC)         6         PLC Code         UL 746A           Arc Resistance, Tungsten (PLC)         6         PLC Code         ASTM D495           UL Yellow Card Link         £121562-101283897         -         -         -           UL Recognized, 94HB Flame Class Rating         ≥1         mm         UL 94         UL 94           INJECTION MOLDING <sup>(4)</sup> Will Temperature         80         °C         -         -           Drying Time         4         Hrs         -	Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62
Hot-Wire Ignition (HWI), PLC 2         ≥3         mm         UL 746A           Hot-Wire Ignition (HWI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HAI), PLC 1         ≥1.5         mm         UL 746A           High Amp Arc Ignition (HAI), PLC 3         ≥1         mm         UL 746A           High Voltage Arc Track Rate {PLC}         1         PLC Code         UL 746A           Arc Resistance, Tungsten (PLC)         6         PLC Code         ASTM D495           FLAME CHARACTERISTICS (²)         UL Yellow Card Link         E121562-101283897         -         -           UL Recognized, 94HB Flame Class Rating         ≥1         mm         UL 94           INJECTION MOLDING (⁴)         mm         UL 94           Drying Temperature         80         °C           Drying Time         4         Hrs           Melt Temperature         225 – 250         °C           Front - Zone 3 Temperature         240 – 250         °C           Middle - Zone 2 Temperature         195 – 205         °C           Rear - Zone 1 Temperature         30 – 50         °C           Mold Temperature         0.2 – 0.3         MPa	ELECTRICAL (1)			
Hot-Wire Ignition (HWI), PLC 3         ≥1         mm         UL 746A           High Amp Arc Ignition (HAI), PLC 1         ≥1.5         mm         UL 746A           High Amp Arc Ignition (HAI), PLC 3         ≥1         mm         UL 746A           High Voltage Arc Track Rate {PLC}         1         PLC Code         UL 746A           Arc Resistance, Tungsten {PLC}         6         PLC Code         ASTM D495           FLAME CHARACTERISTICS (2)         VL Yellow Card Link         E121562-101283897         -         -           UL Recognized, 94HB Flame Class Rating         ≥1         mm         UL 94           INJECTION MOLDING (4)         TUS         C           Drying Temperature         80         °C         C           Drying Time         4         Hrs         C           Melt Temperature         225 - 250         °C         C           Front - Zone 3 Temperature         240 - 250         °C         C           Middle - Zone 2 Temperature         215 - 225         °C         C           Mold Temperature         30 - 50         °C         C           Mold Temperature         30 - 50         °C         C	Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
High Amp Arc Ignition (HAI), PLC 1       ≥1.5       mm       UL 746A         High Amp Arc Ignition (HAI), PLC 3       ≥1       mm       UL 746A         High Voltage Arc Track Rate {PLC}       1       PLC Code       UL 746A         Arc Resistance, Tungsten {PLC}       6       PLC Code       ASTM D495         FLAME CHARACTERISTICS (2)       UL Yellow Card Link       £121562-101283897       -       -       -         UL Recognized, 94HB Flame Class Rating       ≥1       mm       UL 94         INJECTION MOLDING (4)       T       T       -       -       -         Drying Temperature       80       °C       -       -       -         Drying Time       4       Hrs       -	Hot-Wire Ignition (HWI), PLC 2	≥3	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3	Hot-Wire Ignition (HWI), PLC 3	≥1	mm	UL 746A
High Voltage Arc Track Rate {PLC}         1         PLC Code         UL 746A           Arc Resistance, Tungsten {PLC}         6         PLC Code         ASTM D495           FLAME CHARACTERISTICS (²)           UL Yellow Card Link         E121562-101283897         -         -           UL Recognized, 94HB Flame Class Rating         ≥ 1         mm         UL 94           INJECTION MOLDING (⁴)           Drying Temperature         80         °C         -           Prying Time         4         Hrs         -           Melt Temperature         225 – 250         °C         -           Front - Zone 3 Temperature         240 – 250         °C         -           Middle - Zone 2 Temperature         195 – 205         °C         -           Rear - Zone 1 Temperature         30 – 50         °C         -           Mold Temperature         30 – 50         MPa         -	High Amp Arc Ignition (HAI), PLC 1	≥1.5	mm	UL 746A
Arc Resistance, Tungsten {PLC}         6         PLC Code         ASTM D495           FLAME CHARACTERISTICS (²)         FL21562-101283897         -         -           UL Recognized, 94HB Flame Class Rating         ≥1         mm         UL 94           INJECTION MOLDING (⁴)         C         C           Drying Temperature         80         °C         C           Melt Temperature         4         Hrs         C           Front - Zone 3 Temperature         240 - 250         °C         C           Middle - Zone 2 Temperature         215 - 225         °C         C           Rear - Zone 1 Temperature         195 - 205         °C         C           Mold Temperature         30 - 50         °C         C           Back Pressure         0,2 - 0.3         MPa         HPa	High Amp Arc Ignition (HAI), PLC 3	≥1	mm	UL 746A
FLAME CHARACTERISTICS (2)           UL Yellow Card Link         E121562-101283897         -         -           UL Recognized, 94HB Flame Class Rating         ≥1         mm         UL 94           INJECTION MOLDING (4)           Drying Temperature         80         °C         C           Drying Time         4         Hrs         C           Melt Temperature         225 - 250         °C         C           Front - Zone 3 Temperature         240 - 250         °C         C           Middle - Zone 2 Temperature         215 - 225         °C         C           Rear - Zone 1 Temperature         195 - 205         °C         C           Mold Temperature         30 - 50         °C         MPa           Back Pressure         0.2 - 0.3         MPa         Less and the color of th	High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
UL Yellow Card Link         E121562-101283897         -	Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D495
UL Recognized, 94HB Flame Class Rating ≥1 mm UL 94   INJECTION MOLDING (4)   Drying Temperature 80 °C   Drying Time 4 </td <td>FLAME CHARACTERISTICS (2)</td> <td></td> <td></td> <td></td>	FLAME CHARACTERISTICS (2)			
INJECTION MOLDING <sup>(4)</sup> Drying Temperature         80         °C           Drying Time         4         Hrs           Melt Temperature         225 - 250         °C           Front - Zone 3 Temperature         240 - 250         °C           Middle - Zone 2 Temperature         215 - 225         °C           Rear - Zone 1 Temperature         195 - 205         °C           Mold Temperature         30 - 50         °C           Back Pressure         0.2 - 0.3         MPa	UL Yellow Card Link	E121562-101283897	-	-
Drying Temperature         80         °C           Drying Time         4         Hrs           Melt Temperature         225 – 250         °C           Front - Zone 3 Temperature         240 – 250         °C           Middle - Zone 2 Temperature         215 – 225         °C           Rear - Zone 1 Temperature         195 – 205         °C           Mold Temperature         30 – 50         °C           Back Pressure         0.2 – 0.3         MPa	UL Recognized, 94HB Flame Class Rating	≥1	mm	UL 94
Drying Temperature         80         °C           Drying Time         4         Hrs           Melt Temperature         225 – 250         °C           Front - Zone 3 Temperature         240 – 250         °C           Middle - Zone 2 Temperature         215 – 225         °C           Rear - Zone 1 Temperature         195 – 205         °C           Mold Temperature         30 – 50         °C           Back Pressure         0.2 – 0.3         MPa	INJECTION MOLDING (4)			
Melt Temperature         225 – 250         °C           Front - Zone 3 Temperature         240 – 250         °C           Middle - Zone 2 Temperature         215 – 225         °C           Rear - Zone 1 Temperature         195 – 205         °C           Mold Temperature         30 – 50         °C           Back Pressure         0.2 – 0.3         MPa		80	°C	
Front - Zone 3 Temperature         240 – 250         °C           Middle - Zone 2 Temperature         215 – 225         °C           Rear - Zone 1 Temperature         195 – 205         °C           Mold Temperature         30 – 50         °C           Back Pressure         0.2 – 0.3         MPa	Drying Time	4	Hrs	
Middle - Zone 2 Temperature         215 – 225         °C           Rear - Zone 1 Temperature         195 – 205         °C           Mold Temperature         30 – 50         °C           Back Pressure         0.2 – 0.3         MPa	Melt Temperature	225 – 250	°C	
Rear - Zone 1 Temperature         195 – 205         °C           Mold Temperature         30 – 50         °C           Back Pressure         0.2 – 0.3         MPa	Front - Zone 3 Temperature	240 – 250	°C	
Mold Temperature         30 – 50         °C           Back Pressure         0.2 – 0.3         MPa	Middle - Zone 2 Temperature	215 – 225	°C	
Back Pressure 0.2 – 0.3 MPa	Rear - Zone 1 Temperature	195 – 205	°C	
	Mold Temperature	30 – 50	°C	
Screw Speed         30 – 60         rpm	Back Pressure	0.2 - 0.3	MPa	
	Screw Speed	30 – 60	rpm	

<sup>(1)</sup> 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.

<sup>(2)</sup> 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.

<sup>(3)</sup> 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.

<sup>(4)</sup> 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.



## **DISCLAIMER**

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