

LNPTM THERMOCOMPTM COMPOUND DF005

DF-1005

DESCRIPTION

LNP THERMOCOMP DF005 compound is based on Polycarbonate (PC) resin containing 25% glass fiber.

GENERAL INFORMATION	
Features	High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	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, yld, Type I, 5 mm/min	109	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	108	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	3.4	%	ASTM D638
Tensile Modulus, 50 mm/min	8330	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	180	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	180	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7020	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	109	MPa	ISO 527
Tensile Stress, break, 5 mm/min	107	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.7	%	ISO 527
Tensile Strain, break, 5 mm/min	3.3	%	ISO 527
Tensile Modulus, 1 mm/min	7890	MPa	ISO 527
Flexural Stress	180	MPa	ISO 178
Flexural Modulus, 2 mm/min	6990	MPa	ISO 178
IMPACT (1)			
Izod Impact, unnotched, 23°C	901	J/m	ASTM D4812
Izod Impact, notched, 23°C	109	J/m	ASTM D256
Multiaxial Impact	3	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	16	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	54	kJ/m²	ISO 180/1U



PROPERTIES 10				
HDFLOAS MPA, 3.2 mm, unannealed 144 "C ASTM D648 HDFL, 182 MPA, 3.2 mm, unannealed 144 "C ASTM D688 CTE, 30°Ct 30°C, flow 2.500 11°C ASTM D686 CTE, 30°Ct 30°C, flow 7.506 11°C ASTM D686 CTE, 30°Ct 30°C, flow 7.506 11°C ASTM D686 CTE, 30°Ct 30°C, flow 164 10°C 150.75 Jg/l HDTJ/R1, 1.8 MPa flatw 80°10°4 sp=64mm 141 °C 0.50.75 Jg/l Relative Temp Index, Mech wylimpact ⁽²⁾ 125 °C 0.12 468 Relative Temp Index, Mech wylimpact ⁽²⁾ 125 °C 0.12 468 Relative Temp Index, Mech wylimpact ⁽²⁾ 125 °C 0.12 468 Relative Temp Index, Mech wylimpact ⁽²⁾ 125 °C 0.12 468 Molsture Absorption (23°C) Sox RH/24 hrs) 1.4 °C ASTM D952 Molsture Absorption (23°C) Sox RH/24 hrs) 0.1 °C ASTM D955 Molsture Absorption (23°C) Sox RH/24 hrs) 0.2 °C XSTM D955 Molsture Absorption (23°C) Sox RH/24 hrs) 0.5<	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed 144 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 141 °C ASTM D696 CTE, 30°C to 30°C, filow 7.606 11/°C ASTM D696 CTE, 30°C to 30°C, filow 7.606 11/°C ASTM D696 HDT/R/I, 0.45 MPa Flaxw 80°10°4 sp=64mm 145 °C 150 75/81 HDT/R/I, 1.8 MPa Flatw 80°10°4 sp=64mm 141 °C UL 7468 Relative Temp Index, Bec. ⁽²⁾ 125 °C UL 7468 Relative Temp Index, Mech w/n impact ⁽²⁾ 125 °C UL 7468 Relative Temp Index, Mech w/n impact ⁽²⁾ 14 ° ASTM D792 Relative Temp Index, Mech w/n impact ⁽²⁾ 14 ° ASTM D792 Relative Temp Index, Mech w/n impact ⁽²⁾ 14 ° ASTM D792 Mold Shrinkage, xifox y 24 hrs. ⁽³⁾ 0.14 % ASTM D792 Mold Shrinkage, xifox y 24 hrs. ⁽³⁾ 0.2 % ASTM D955 ELECTRICAL ⁽³⁾ 4 SC Code ASTM D955 Bidshinkage, xifox, y 24 hrs. ⁽³⁾ 15 <th< td=""><td>Izod Impact, notched 80*10*4 +23°C</td><td>10</td><td>kJ/m²</td><td>ISO 180/1A</td></th<>	Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
HDT. 1.82 MPa. 3.2mm, unannealed 141 °C ASTM D648 CTE. 30°C to 30°C, flow 2.606 1)°C ASTM D696 CTE. 30°C to 30°C, flow 7.606 1)°C ASTM D696 DTD/18, 0.45 MPa flatw 80°10°4 spe4mm 145 °C 150 75/M HDT/AI, 1.8 MPa Flatw 80°10°4 spe4mm 141 °C 150 75/M Relative Temp Index, Relct ⁽²⁾ 125 °C U.7468 Relative Temp Index, Mech w/Impact (°) 125 °C U.7468 PHYSICAL (°) 12 °C U.7468 Bolisture Rabitwe Temp Index, Mech w/ impact (°) 1.4 °C ASTM D95 Molsture Absorption (23°C/50% RH/24 hrs) 0.14 °C ASTM D95 Molsture Absorption (23°C/50% RH/24 hrs) 0.2 − 0.5 % ASTM D95 Molsture Absorption (23°C/50% RH/24 hrs) 0.2 − 0.5 % ASTM D95 Molsture Absorption (23°C/50% RH/24 hrs) 0.2 − 0.5 % ASTM D95 Molsture Absorption (23°C/50% RH/24 hrs) 1.5 mm U.746A Helb Williage Arc Tack Rate (PUC) 2 <	THERMAL (1)			
CFE30°C to 30°C, flow 2.606 1/°C ASTM D696 CFE30°C to 30°C, xflow 7.606 1/°C ASTM D696 DTD/J8ft, AS MPA Flattw 80°10°4 sp=64mm 141 °C 150°75/4 Relative Temp Index, Elsec ⁽²⁾ 125 °C UL 7468 Relative Temp Index, Mech w/Impact ⁽²⁾ 155 °C UL 7468 Relative Temp Index, Mech w/Impact ⁽²⁾ 125 °C UL 7468 Relative Temp Index, Mech w/Impact ⁽²⁾ 125 °C UL 7468 Relative Temp Index, Mech w/Impact ⁽²⁾ 14 °C ASTM D792 PHYSICAL ⁽¹⁾ 1 * ASTM D595 Molsture Absorption, (23°C/50% RH/24 hrs) 0.14 % ASTM D595 Mold Shrinkage, 4flow, 24 hrs ⁽³⁾ 0.5 − 0.8 % ASTM D595 Molsture Absorption (23°C/50% RH) 4 PCCode U. 746A High Voltage Arc Tack Rate (PLC) 4 PCCode U. 746A High Amp Arc Ignition (HAI), PLC 2 31.5 mm U. 746A High Amp Arc Ignition (HAI), PLC 2 12.5 mm	HDT, 0.45 MPa, 3.2 mm, unannealed	144	°C	ASTM D648
CTE. 30°C to 30°C, tillow 7.606 1/°C ASIM De96 HDT JRI, 0.45 MPa Flatus 80°10°4 sp=64mm 145 °C 150 75 JRI HDT JRI, 1.8 MPa Flatus 80°10°4 sp=64mm 125 °C 0.07 5/JRI Relative Temp Index, Bec. Pill 125 °C U.7468 Relative Temp Index, Mech w/ (impact. Pill) 15 °C U.7468 Relative Temp Index, Mech w/ (impact. Pill) 125 °C U.7468 Relative Temp Index, Mech w/ (impact. Pill) 125 °C U.7468 Relative Temp Index, Mech w/ (impact. Pill) 125 °C U.7468 Relative Temp Index, Mech w/ (impact. Pill) 12 12 °C U.7468 Relative Temp Index, Mech w/ (impact. Pill) 14 C 0.07468 C U.7468 Broth Control 1.4 4 ASTM D92 C C ASTM D95 C C MSTM D95 C C ASTM D95 C C ASTM D95 C C C ASTM D95 C C ASTM D95 C C <	HDT, 1.82 MPa, 3.2mm, unannealed	141	°C	ASTM D648
HDT/Bf. 0.45 MPa Flatw 80*10*4 sp=64mm 145 °C ISO 75/Bf HDT/Af. 1.8 MPa Flatw 80*10*4 sp=64mm 141 °C ISO 75/Af Relative Temp Index, Mech w/Impact (²) 115 °C UL 7468 Relative Temp Index, Mech w/Impact (²) 125 °C UL 7468 Relative Temp Index, Mech w/Impact (²) 125 °C UL 7468 Relative Temp Index, Mech w/Impact (²) 125 °C UL 7468 Relative Temp Index, Mech w/Impact (²) 125 °C UL 7468 Relative Temp Index, Mech w/Impact (²) 125 °C UL 7468 Relative Temp Index, Mech w/Impact (²) 14 . ASTM 0792 Molecture Gravity 14 . ASTM 0792 Molisture Absorption (23°C/508 RH/24 hrs) 0.14 . ASTM 0792 Molisture Absorption (23°C/508 RH/24 hrs) 0.2-0.5 \$ ASTM 0792 Molisture Absorption (23°C/508 RH)24 hrs) 0.2-0.8 SO 62 High Amp Arc Ignition (Hall), PLC 2 4 PLC Cade UL 746A High Amp Arc Ignition (Hall), PLC 2 2	CTE, -30°C to 30°C, flow	2,E-06	1/°C	ASTM D696
HOT/AI, 1.8 MPs Flatw 80°10°4 sp=64mm 141 °C ISO 75/AI Relative Temp Index, Elec ⁽⁶⁾ 125 °C UL 7468 Relative Temp Index, Mech w/ Impact ⁽²⁾ 115 °C UL 7468 Relative Temp Index, Mech w/ Impact ⁽²⁾ 125 °C UL 7468 Relative Temp Index, Mech w/ Impact ⁽²⁾ 125 °C UL 7468 PHYSICAL ⁽¹⁾ ************************************	CTE, -30°C to 30°C, xflow	7.E-06	1/°C	ASTM D696
Relative Temp Index, Elec (²) 125 °C U. 7468 Relative Temp Index, Mech w/Impact (²) 115 °C U. 7468 Relative Temp Index, Mech w/Impact (²) 125 °C U. 7468 PHYSICAL (¹) FURSICAL (¹) FURSICAL (¹) Moisture Absorption, (23°C/50% RH/24 hrs) 0.14 % ASTM D792 Moisture Absorption, (23°C/50% RH/24 hrs) 0.14 % ASTM D792 Moisture Absorption, (23°C/50% RH/24 hrs) 0.2-0.5 % ASTM D955 Moisture Absorption, (23°C/50% RH/24 hrs) 0.2-0.5 % ASTM D955 Moisture Absorption (23°C/50% RH/24 hrs) 0.2-0.5 % ASTM D955 Moisture Absorption (23°C/50% RH/24 hrs) 0.2-0.5 % ASTM D955 Moisture Absorption (23°C/50% RH/24 hrs) 0.2-0.8 % O6 Moisture Absorption (23°C/50% RH/24 hrs) 0.2-0.8 % O6 ELECTRICAL (¹) 4 ASTM D955 ASTM D955 LECCTRICAL (¹) 1.2 ASTM D95 ASTM D956	HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	145	°C	ISO 75/Bf
Relative Temp Index, Mech w/Impact (2) 155 °C Ut.7468 Relative Temp Index, Mech w/Io impact (2) 125 °C Ut.7468 PHYSICAL (1) USPECIAL (2) V ASTM D792 Moisture Absorption, (23°C/50% RH/24 hrs) 0.14 % ASTM D953 Moid Shrinkage, fflow, 24 hrs (3) 0.2-0.5 % ASTM D955 Moid Shrinkage, xflow, 24 hrs (3) 0.5-0.8 % ASTM D955 Moid Shrinkage, xflow, 24 hrs (3) 0.5-0.8 % ASTM D955 Moid Shrinkage, xflow, 24 hrs (3) 0.2 % DECENTICAL (1) Moid Shrinkage, xflow, 24 hrs (3) 0.2 % OS 2. Moid Shrinkage, xflow, 24 hrs (3) 0.2 % OS 2. Miss (2) 4 PC Code U. 746A Q Bib Assortion (1,4) PLC Q 1.5 mm U. 746A High Amp Are (spittion (HMI), PLC 4 2.5 mm U. 746A Uk Recognized, 94V-1 Flame Class Rating 2.1 2. Uk Recognized, 94V-2 Flame	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75/Af
Relative Tempindex, Mech w/o impact ⁽²⁾ 125 °C Ul. 7468 PHYSICAL ⁽¹⁾ Ferritic Gravity 1.4 2.0 ASTM D792 Moisture Absorption, (23°C/50%RH/24 hrs) 0.14 \$2.0 ASTM D570 Mold Shrinkage, fflow, 24 hrs ⁽³⁾ 0.5 – 0.8 \$3.0 ASTM D955 Moisture Absorption (23°C/50%RH) 0.5 – 0.8 \$3.0 ASTM D955 Bigh Voltage Arc Track Rate (PIC) 4 PLC Code U. 746A High Amp Arc Ignition (HWI), PLC 0 2.1 mm Ul. 746A High Amp Arc Ignition (HWI), PLC 0 2.1 mm U. 746A High Amp Arc Ignition (HAII), PLC 4 2.5 mm U. 746A High Amp Arc Ignition (HAII), PLC 4 2.5 mm U. 746A U Yellow Card Link £12562-101344533 - - - U Yellow Card Link £2 1.0 - - U Yellow Card Link £2 - - - U Yellow Card Link £2 1.0 - - U Yellow Card Sasting 2	Relative Temp Index, Elec ⁽²⁾	125	°C	UL 746B
PHYSICAL.** Specific Gravity 1.4 ASTM D792 Moisture Absorption, (23°C/50% RH/24 hrs) 0.14 % ASTM D570 Mold Shrinkage, flow, 24 hrs.** 0.5 - 0.8 % ASTM D95 Moisture Absorption (23°C/50% RH) 0.5 - 0.8 % ASTM D95 Moisture Absorption (23°C/50% RH) 0.2 % SC 62 ELECTRICAL.**(1°12°) * WC Code UL 746A Hot-Wire Ignition (HWI), PLC O ≥1.5 mm UL 746A High Amp Arc Ignition (HMI), PLC Q ≥1.5 mm UL 746A High Amp Arc Ignition (HMI), PLC Q ≥1.5 mm UL 746A High Amp Arc Ignition (HMI), PLC Q ≥1.5 mm UL 746A U.Yellow Card Llink £12.562-101344533 ~ . U. Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 U. Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 U. Prior Time 1 C C Drying Time 1 C C	Relative Temp Index, Mech w/impact (2)	115	°C	UL 746B
Specific Gravity 1.4 - ASTM D792 Moisture Absorption, (23°C/50%RH/24 hrs) 0.14 % ASTM D957 Mold Shrinkage, flow, 24 hrs ⁽¹⁾ 0.2 - 0.5 % ASTM D955 Mold Shrinkage, xflow, 24 hrs ⁽¹⁾ 0.5 - 0.8 % ASTM D955 Moisture Absorption (23°C / 50%RH) 0.2 % ASTM D955 Moisture Absorption (23°C / 50%RH) 0.2 % ASTM D955 Mighter Absorption (23°C / 50%RH) 0.2 % ASTM D955 Moisture Absorption (23°C / 50%RH) 0.2 % ASTM D955 Mighter Absorption (23°C / 50%RH) 4 Cecee UL 746A High Voltage Art Track Rate (PLC) 4 PLC Code UL 746A Hot-Wire Ignition (HWI), PLC 0 ≥1.5 mm UL 746A High Amp Arc Ignition (HAI), PLC 2 ≥3 mm UL 746A UL Yellow Card Link £121562-101344533 - - - UL Recognized, 94V-2 Flame Class Rating ≥3 mm UL 94 - UN EXIDIO MOLDING (****) **********************	Relative Temp Index, Mech w/o impact (2)	125	°C	UL 746B
Moisture Absorption, (23°C/50% RH/124 hrs) 0.14 % ASTM D950 Mold Shrinkage, flow, 24 hrs ⁽³⁾ 0.2 − 0.5 % ASTM D955 Moisture Absorption (23°C / 50% RH) 0.5 − 0.8 % ASTM D955 Moisture Absorption (23°C / 50% RH) 0.2 % SECTION COME ELECTRICAL ⁽¹⁾ (12) V V V V V V ASTM D955 High Voltage Arc Track Rate {PLC} 4 4 PLC Code UL 746A UL 746A PLC Voltage UL 746A PL Voltage V PL Voltage V V PL Voltage V V PL Voltage V V ASTM D955 ASTM D956 ASTM D956 <th< td=""><td>PHYSICAL (1)</td><td></td><td></td><td></td></th<>	PHYSICAL (1)			
Mold Shrinkage, flow, 24 hrs ⁽¹⁾ 0.2 − 0.5 % ASTM D955 Mold Shrinkage, xflow, 24 hrs ⁽¹⁾ 0.5 − 0.8 % ASTM D955 Moisture Absorption (23°C / 50% RH) 0.2 % ISO 62 ELECTRICAL ⁽¹⁾⁽²⁾ W V V V High Voltage Arc Track Rate (PLC) 4 PLC Code UL 746A Hot-Wire Ignition (HMI), PLC 0 ≥1.5 mm UL 746A High Amp Arc Ignition (HAI), PLC 4 ≥1.5 mm UL 746A High Amp Arc Ignition (HAI), PLC 4 ≥1.5 mm UL 746A LU Yellow Card Link £121562-101344533 - - U. Yellow Card Link £1.5 mm UL 94 UL Recognized, 94V-1 Flame Class Rating ≥1.5 mm UL 94 U. Recognized, 94V-2 Flame Class Rating ≥1.5 mm U. 94 INJECTION MOLDING ⁽⁴⁾ T T Drying Temperature 10.0 °C C Melt Temperature 300 – 330 °C C Front - Zone 3 Temperature 300 –	Specific Gravity	1.4	-	ASTM D792
Mold Shrinkage, xflow, 24 hrs ⁽³⁾ 0.5 – 0.8 % ASTM D955 Moisture Absorption (23°C / 50% RH) 0.2 % ISO 62 ELECTRICAL ⁽¹⁾ (2) V V V High Voltage Arc Track Rate {PLC} 4 PLC Code UL 746A Hot-Wire Ignition (HWI), PLC 0 ≥1.5 mm UL 746A High Amp Arc Ignition (HAI), PLC 2 ≥3 mm UL 746A High Amp Arc Ignition (HAI), PLC 4 ≥1.5 mm UL 746A FLAME CHARACTERISTICS ⁽²⁾ UL 746A ** ** UL Yellow Card Link £121562-101344533 - - ** UL Recognized, 94V-1 Flame Class Rating ≥1.5 mm UL 94 ** UL Recognized, 94V-2 Flame Class Rating ≥1.5 ** *	Moisture Absorption, (23°C/50% RH/24 hrs)	0.14	%	ASTM D570
Moisture Absorption (23°C / 50% RH) 0.2 % ISO 62 ELECTRICAL (¹¹)(²) ** ISO 62 High Voltage Arc Track Rate (PLC) 4 PLC Code UL 746A Hot-Wire Ignition (HWI), PLC 0 ≥1.5 mm UL 746A High Amp Arc Ignition (HAI), PLC 2 ≥3 mm UL 746A High Amp Arc Ignition (HAI), PLC 4 ≥1.5 mm UL 746A FLAME CHARACTERISTICS (²) ** ** UL Yellow Card Link £121562-101344533 - - ** UL Recognized, 94V-2 Flame Class Rating ≥3 mm UL 94 UL Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 UL Recognized, 94V-2 Flame Class Rating ≥3 mm U. 94 INJECTION MOLDING (*) ** ** Drying Temperature 1 0.02 * ** Maximum Moisture Content 0.02 % ** ** Maximum Moisture Content 305 – 325 % ** ** Front - Zone 3 Temperature 30	Mold Shrinkage, flow, 24 hrs (3)	0.2 – 0.5	%	ASTM D955
ELECTRICAL (¹¹¹²²² High Voltage Arc Track Rate (PLC) 4 PLC Code UL 746A Hot-Wire Ignition (HWI), PLC 0 ≥1.5 mm UL 746A High Amp Arc Ignition (HAI), PLC 2 ≥3 mm UL 746A High Amp Arc Ignition (HAI), PLC 4 ≥1.5 mm UL 746A FLAME CHARACTERISTICS (²) UL Yellow Card Link £121562-101344533 - - UL Recognized, 94V-1 Flame Class Rating ≥3 mm UL 94 UL Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 INJECTION MOLDING (⁴) 2 This section of the sectio	Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.5 – 0.8	%	ASTM D955
High Voltage Arc Track Rate {PLC} 4 PLC Code UL 746A Hot-Wire Ignition (HWI), PLC 0 ≥1.5 mm UL 746A High Amp Arc Ignition (HAI), PLC 2 ≥3 mm UL 746A High Amp Arc Ignition (HAI), PLC 4 ≥1.5 mm UL 746A FLAME CHARACTERISTICS (²) UL Yellow Card Link £121562-101344533 - - UL Recognized, 94V-1 Flame Class Rating ≥3 mm UL 94 UL Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 INJECTION MOLDING (⁴) UL 94 UL 94 Drying Temperature 120 °C Promission (a) Maximum Moisture Content 0.02 % Promission (a) Pro	Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Hot-Wire Ignition (HWI), PLC 0 ≥1.5 mm UL 746A High Amp Arc Ignition (HAI), PLC 2 ≥3 mm UL 746A High Amp Arc Ignition (HAI), PLC 4 ≥1.5 mm UL 746A FLAME CHARACTERISTICS (2) UL Yellow Card Link E121562-101344533 - - UL Recognized, 94V-1 Flame Class Rating ≥3 mm UL 94 UL Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 INJECTION MOLDING (4) TUL 94 Proming Time 4 Hrs Proming Time 4 Hrs Proming Time Maximum Moisture Content 0.02 % Proming Time 90.2 Proming Time 90.2 Proming Time 90.2 Proming Time 90.2 90.2 90.2 Proming Time 90.2 90.2 90.2 90.2 90.2 90.2 90.2 90.2 90.2	ELECTRICAL (1) (2)			
High Amp Arc Ignition (HAI), PLC 2 ≥3 mm UL 746A High Amp Arc Ignition (HAI), PLC 4 ≥1.5 mm UL 746A FLAME CHARACTERISTICS (²) UL Yellow Card Link £121562-101344533 - - UL Recognized, 94V·1 Flame Class Rating ≥3 mm UL 94 UL Recognized, 94V·2 Flame Class Rating ≥1.5 mm UL 94 INJECTION MOLDING (⁴) Drying Temperature 120 °C Prying Time 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 80 – 110 °C Mold Temperature 80 – 110 °C Back Pressure MPa	High Voltage Arc Track Rate {PLC}	4	PLC Code	UL 746A
High Amp Arc Ignition (HAI), PLC 4 ≥1.5 mm UL 746A FLAME CHARACTERISTICS (2) . UL Yellow Card Link £121562-101344533 - - UL Recognized, 94V-1 Flame Class Rating ≥3 mm UL 94 UL Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 INJECTION MOLDING (4) . Drying Temperature 120 °C Drying Time 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 80 – 110 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa	Hot-Wire Ignition (HWI), PLC 0	≥1.5	mm	UL 746A
FLAME CHARACTERISTICS (2) UL Yellow Card Link E121562-101344533 - - UL Recognized, 94V-1 Flame Class Rating ≥3 mm UL 94 INJECTION MOLDING (4) Drying Temperature 120 °C Drying Time 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 80 – 110 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa	High Amp Arc Ignition (HAI), PLC 2	≥3	mm	UL 746A
UL Yellow Card Link E121562-101344533 - - - UL Recognized, 94V-1 Flame Class Rating ≥3 mm UL 94 UL Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 INJECTION MOLDING (4) Drying Temperature 120 °C - Drying Time 4 Hrs -	High Amp Arc Ignition (HAI), PLC 4	≥1.5	mm	UL 746A
UL Recognized, 94V-1 Flame Class Rating ≥3 mm UL 94 UL Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 INJECTION MOLDING (4) Drying Temperature 120 °C Drying Time 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 295 – 305 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa	FLAME CHARACTERISTICS (2)			
UL Recognized, 94V-2 Flame Class Rating ≥1.5 mm UL 94 INJECTION MOLDING ⁽⁴⁾ C Drying Temperature 120 °C Drying Time 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 295 – 305 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa	UL Yellow Card Link	E121562-101344533	-	
INJECTION MOLDING ⁽⁴⁾ Drying Temperature 120 °C Drying Time 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 295 – 305 °C Mold Temperature 80 – 110 °C Mold Temperature 80 – 20.3 MPa	UL Recognized, 94V-1 Flame Class Rating	≥3	mm	UL 94
Drying Temperature 120 °C Drying Time 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 295 – 305 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa	UL Recognized, 94V-2 Flame Class Rating	≥1.5	mm	UL 94
Drying Time 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 295 – 305 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa	INJECTION MOLDING (4)			
Drying Time 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 295 – 305 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa	Drying Temperature	120	°C	
Melt Temperature 305 – 325 °C Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 295 – 305 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa		4	Hrs	
Front - Zone 3 Temperature 320 – 330 °C Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 295 – 305 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa		0.02	%	
Middle - Zone 2 Temperature 310 – 320 °C Rear - Zone 1 Temperature 295 – 305 °C Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa	Melt Temperature	305 – 325	°C	
Rear - Zone 1 Temperature 295 - 305 °C Mold Temperature 80 - 110 °C Back Pressure 0.2 - 0.3 MPa	Front - Zone 3 Temperature	320 – 330	°C	
Mold Temperature 80 – 110 °C Back Pressure 0.2 – 0.3 MPa	Middle - Zone 2 Temperature	310 – 320	°C	
Back Pressure 0.2 – 0.3 MPa	Rear - Zone 1 Temperature	295 – 305	°C	
	Mold Temperature	80 – 110	°C	
Screw Speed 30 – 60 rpm	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⁾ 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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