

LNPTM ELCRINTM WF0061IQ

DESCRIPTION

LNP ELCRIN WF0061iQ compound is based on Polybutylene terephthalate (PBT) resin utilizing ELCRIN iQ upcycling technology containing minimum 26% Post-Consumer Recycling (PCR) weight content and 30% glass fiber. Added features of this grade include: Non-Chlorinated, Non-Brominated Flame Retardant, UL94VO and 5VB Flame Rating, Excellent Chemical Resistance. This is a good candidate for a variety of applications needing a more sustainable FR and PBT solution.

GENERAL INFORMATION	
Applications	Automotive , Electronics, Healthcare
Features	Flame Retardant, Chemical Resistance, Sustainable (Advanced Recycling), Non CI/Br flame retardant, High stiffness/Strength
Fillers	Glass Fiber
Polymer Types	Polybutylene Terephthalate (PBT)
Processing Techniques	Injection Molding
Regional Availability	Europe, Asia, Americas

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Consumer	Home Decoration, Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL (1)			
Tensile Stress, yld, Type I, 5 mm/min	105	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	105	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2	%	ASTM D638
Tensile Modulus, 5 mm/min	11000	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	165	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	165	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	9600	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	108	MPa	ISO 527
Tensile Stress, break, 5 mm/min	108	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	11000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	175	MPa	ISO 178
Flexural Stress, break, 2 mm/min	175	MPa	ISO 178
Flexural Modulus, 2 mm/min	10000	MPa	ISO 178
IMPACT (1)			
Izod Impact, unnotched, 23°C	570	J/m	ASTM D4812



Rod Impact, notched, 23°C 72 JIm AS IMD 256 Lood Impact, notched, 30°C 55 J/m ASTIAL D256 Instrumented Dart Impact Total Energy, 23°C 6 I ASTIAL D256 Lood Impact, notched 80°10°4 *23°C 7 kJ/m² 50 180/14 Lood Impact, notched 80°10°4 *23°C 7 kJ/m² 50 180/14 Lood Impact, notched 80°10°4 *23°C 7 kJ/m² 50 180/14 HOT, 18, 28 May, 3, 22m., unanealed 200 *C ASTIAL D48 HOT, 18, 28 May, 3, 22m., unanealed 214 *C ASTIAL D48 CTE, 40°C to 40°C, 160° 86.5 1/°C ASTIAL D48 CTE, 40°C to 40°C, 160° 86.5 1/°C ASTIAL D48 CTE, 40°C to 40°C, 160° 86.5 1/°C ASTIAL D48 RESIDENCE Tong Index, Mech w/limpact** 75 *C U. 7468 CTE, 40°C to 40°C, 160° 18 50 U. 7468 Relative Temp Index, Mech w/limpact** 75 *C U. 7460 CTE, 40°C to 40°C, 160° 1.56 \$S SMILL 7460				
tool impact, notched, 30°C 55 I/Im ATM D256 instrumented Dart Impact, Total Energy, 23°C 6 J ASIM D2763 tool instrumented Dart Impact, Total Energy, 23°C 7 kl/Im² 80 180/11 tool impact, notched 88°10°4 23°C 7 kl/Im² 80 180/1A tool Impact, notched 88°10°4 30°C 6 kl/Im² 80 180/1A THERMAL I** V V ASTM D648 THOT, 0.48 MPa, 3.2 mm, unannealed 200 °C ASTM D648 CTE, 40°C to 40°C, flow 246 05 1,°C ASTM D648 CTE, 40°C to 40°C, flow 8605 1,°C ASTM B831 Bland Pessure Test, 15°C+, 12°C PKSTS - IC Cut 40°C Relative Temp Index, Mech w/limpact I** 75 °C U, 7488 Relative Temp Index, Mech w/limpact I** 75 °C U, 7488 Relative Temp Index, Mech w/limpact I** 75 °C U, 7488 Relative Temp Index, Mech w/limpact I** 1.56 S SAC method Mod Strinkslege, Mow 3.2 mm I** 0.28 S	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
instrumented Dart Impact Total Energy, 23°C	Izod Impact, notched, 23°C	72	J/m	ASTM D256
tool Impact, unnotched 80*10*4 + 23*°C 37 kJ m² 50 180/11 tool Impact, notched 80*10*4 + 23*°C 6 kJ m² 50 180/14 tool Impact, notched 80*10*4 + 23*°C 6 kJ m² 50 180/14 THE MICH 18** 50 180/14 50 180/14 HDIT 18.8 MPa. 3.2 mm, unannealed 20 °C ASTM D648 CTE, 40°C to 40°C, flow 24.6 °C 1/°C ASIM L883 CTE, 40°C to 40°C, flow 86-09 1/°C ASIM L883 CTE, 40°C to 40°C, flow 75 °C U. 7468 Relative Temp Index, Mech w/impact ⁽²⁾ 75 °C U. 7468 Relative Temp Index, Mech w/impact ⁽²⁾ 75 °C U. 7468 PHYSICAL ⁽¹⁾ 1.56 ~ ASIM L813 Relative Temp Index, Mech w/impact ⁽²⁾ 0.57 % SAGC Medicular Mold Shrinkage, flow 3.2 mm ⁽²⁾ 0.28 % MiCh Cell Mold Shrinkage, flow 3.2 mm ⁽²⁾ 0.28 MiCh Cell MiCh Cell Meth Volume Rate, MVR at 250°C (50 kg 16 miCh Cell <t< td=""><td>Izod Impact, notched, -30°C</td><td>55</td><td>J/m</td><td>ASTM D256</td></t<>	Izod Impact, notched, -30°C	55	J/m	ASTM D256
tool Impact, notched 80°10°4 *22°C 7 ki/m² 50 180/1A tool Impact, notched 80°10°4 *30°C 6 ki/m² 50 180/1A Itool Impact, notched 80°10°4 *30°C 6 ki/m² 50 180/1A HDT, 1.82 MPA, 3.2 mm, unannealed 200 °C ASTM D648 HDT, 0.45 MPA, 3.2 mm, unannealed 214 °C ASTM D648 HDT, 0.45 MPA, 3.2 mm, unannealed 214 °C ASTM D648 CTE, 40°C to 40°C, follow 2.44°G5 11°C ASTM D648 CTE, 40°C to 40°C, stllow 86.05 11°C ASTM E831 CER, 24°C to 40°C, stllow 86.05 11°C ASTM E831 CER, 24°C to 40°C, stllow 86.05 12°C U.7468 Ball Pressure Fex, 125°C+)*-2°C PSSS °C U.7468 Belative Temp Index, Mech w/ jo impact (°) 75 °C U.7468 Relative Temp Index, Mech w/ jo impact (°) 75 % SMIC method Mold Shrinkage, flow, 3.2 mm (°) 0.28 % SMIC method Mold Shrinkage, flow, 3.2 mm (°) 0.59 % <th< td=""><td>Instrumented Dart Impact Total Energy, 23°C</td><td>6</td><td>J</td><td>ASTM D3763</td></th<>	Instrumented Dart Impact Total Energy, 23°C	6	J	ASTM D3763
Ize dimpact, notched 80°10°4-30°C 6 Milyman 50 180/1A THERMALI*** THERMALI*** THERMALI*** THERMALI*** A STM D648 HDT, 1.82 MPa, 3.2mm, unannealed 200 "C ASTM D648 HDT, 0.45 MPa, 3.2mm, unannealed 214 "C ASTM D648 CTC, 40°C to 40°C, flow 260 11°C ASTM E831 Ball Pressure Text, 12°C* MSSES - 10°C MT 7468 Belative Temp Index, Mech w/impact** 75 "C U.7 468 Relative Temp Index, Mech w/impact** 75 "C U.7 468 Relative Temp Index, Mech w/impact** 75 "C U.7 468 Relative Temp Index, Mech w/impact** 75 "C U.7 468 Relative Temp Index, Mech w/impact** 75 "C U.7 468 Relative Temp Index, Mech w/impact** 75 "C U.7 468 Relative Temp Index, Mech w/impact** 1.56 "G 450 Mod Strinkage, strow, 3.2 mm** 1.56 "G 450 Mod Strinkage, flow, 3.2 mm** 9.0 96	Izod Impact, unnotched 80*10*4 +23°C	37	kJ/m²	ISO 180/1U
### THERNAL (**) ### THERNAL	Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
HDT, 1.82 MPa, 3.2 mm, unannealed 10T, 0.45 MPa, 3.2 mm, unannealed 10T, 0.45 MPa, 3.2 mm, unannealed 10T, 0.45 MPa, 3.2 mm, unannealed 10T, 0.40°C to MPC, 10m 10T, 4.0°C to MPC, 10m 10T, 4.0	Izod Impact, notched 80*10*4 -30°C	6	kJ/m²	ISO 180/1A
ADT	THERMAL (1)			
CTE, 40°C to 40°C, flow 2.40°E 1,1°C ASTM E831 CTE, 40°C to 40°C, xflow 86.95 1,1°C ASTM E831 Ball Pressure Test, 125°C +/ 2°C PASSES C UL 7468 Relative Temp Index, Mech w/impact (°) 75 °C UL 7468 Relative Temp Index, Mech w/impact (°) 75 °C UL 7468 Relative Temp Index, Mech w/impact (°) 156 °C ASTM D792 Mold Shrinkage, xflow, 3.2 mm (°) 0.28 \$ ASTM D792 Mold Shrinkage, xflow, 3.2 mm (°) 0.7 \$ ASTM D792 Water Absorption, (23°C/saturated) 0.7 \$ OS 62-1 Molsture Absorption, (23°C/saturated) 0.9 \$ OS 62-1 Melt Volume Rate, MVR at 250°C/5.0 kg 16 mm U. 746A Melt Volume Rate, MVR at 250°C/5.0 kg 20.8 mm U. 746A Mol-Wire Ignition (MWI), PLC 1°I 20.8 mm U. 746A Mol-Wire Ignition (HWI), PLC 0°I 20 U. 746A Mosture Absorption (23°C / 50 kg E.0 U. 746A LiC 760C 20 U. 746A	HDT, 1.82 MPa, 3.2mm, unannealed	200	°C	ASTM D648
CTE. 4.0°C to 4.0°C. x flow 8E-05 1,1°C ASTM E831 Ball Pressure Test. 1,2°S°C + 1,2°S°C PASSES - BC 60089-10.2 Ball Pressure Test. 1,2°S°C + 1,2°S°C PASSES - U. 7468 Relative Temp Index, Mech w/impact ⁽²⁾ 75 °C U. 7468 Relative Temp Index, Mech w/impact ⁽²⁾ 75 °C U. 7468 PHYSICAL. ⁽¹⁾ **** SATIM D792 Mold Shrinkage, show, 3.2 mm ⁽²⁾ 0.28 \$ 0.00 SABIC method Mold Shrinkage, show, 3.2 mm ⁽²⁾ 0.57 \$ 0.00 SABIC method Water Absorption, (23°C/sturated) 0.09 \$ 0.02 SO 0.21 Molt Valuer Rate, MVR at 250°C/5.0 kg 10 mm U. 746A Molt Value Rate, MVR at 250°C/5.0 kg 20.8 mm U. 746A Molt Value Rate, MVR at 250°C/5.0 kg 20.8 mm U. 746A Molt Value Rate, MVR at 250°C/5.0 kg 20.8 mm U. 746A Molt Value Rate, MVR at 250°C/5.0 kg 20.8 mm U. 746A Molt Value Rate, MVR at 250°C/5.0 kg 20.8	HDT, 0.45 MPa, 3.2 mm, unannealed	214	°C	ASTM D648
Ball Pressure Text, 125°C + 1-2°C Relative Temp Index, Elec ¹⁹ Relative Temp Index, Elec ¹⁹ Relative Temp Index, Mech w/Impact ¹⁰ 75 75 76 70 70 70 70 70 70 70 70 70 70 70 70 70	CTE, -40°C to 40°C, flow	2.4E-05	1/°C	ASTM E831
Relative Temp Index, Rech w/impact (°) 75 °C UL 7468 Relative Temp Index, Mech w/impact (°) 75 °C UL 7468 Relative Temp Index, Mech w/o impact (°) 75 °C UL 7468 Relative Temp Index, Mech w/o impact (°) 1.56 °C ASTM D792 Mold Shrinkage, flow, 3.2 mm (°) 0.28 \$ SABIC method Mold Shrinkage, flow, 3.2 mm (°) 0.28 \$ SABIC method Bensity 1.56 g/cm \$50 183 Water Absorption, (23°C/saturated) 0.23 \$ \$50 62 Molt Value Rate, MVR at 250°C/5.0 kg 16 cm/10 min \$50 62 Melt Volue Rate, MVR at 250°C/5.0 kg 8 mm UL 746A Melt Write Ighition (HWN), PLC 1°1 28 mm UL 746A Hot-Wire Ighition (HWN), PLC 0°2 28 mm UL 746A Hoth Wire Ighition (HWN), PLC 0°3 28 mm UL 746A Hoth Wire Ighition (HWN), PLC 0°1 28 mm UL 746A Use Comparative Tracking Index (°) 25 25 25	CTE, -40°C to 40°C, xflow	8E-05	1/°C	ASTM E831
Relative Temp Index, Mech w/impact (2) 75 °C U. 7468 Relative Temp Index, Mech w/o impact (2) 75 °C U. 7468 PHYSICAL (1)*** Specific Gravity 1.56 - ASTM D792 Mold Shrinkage, nfow, 3.2 mm (3) 0.28 % ASMC method Mold Shrinkage, nfow, 3.2 mm (3) 0.57 % ASMC method Mold Shrinkage, xflow, 3.2 mm (3) 0.56 2 ASMC method Water Absorption (23°C / 50x Rth) 0.23 % 150 62 Melt Volume Rate, MVR at 250°C/5.0 kg 16 0.99 % 150 62 Melt Volume Rate, MVR at 250°C/5.0 kg 16 0.80 mm U. 746A Hot Wife Inghition (HWI), PLC 0.0 2 8 mm U. 746A Hot Wife Inghition (HWI), PLC 0.0 2 8 mm U. 746A Hot Wife Inghition (HWI), PLC 0.0 2 8 mm U. 746A Low You Faller (HWI), PLC 0.0 2 8 Mm U. 746A	Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Relative Temp Index, Mech w/o impact (°) 75 Cell Comment Ut 7468 PHYSICAL (°) Specific Gravity 1.56 A SIM D792 Molds Shrinkage, flow, 3.2 mm (°) 0.28 & SABIC method Molds Shrinkage, flow, 3.2 mm (°) 0.57 \$ SABIC method Density 1.56 9 (m²) \$ SO 62-1 Water Absorption, (23°C / saturated) 0.23 \$ SO 62-1 Molsture Absorption (23°C / saturated) 1.6 3 m² / y lm (m²) \$ SO 62-1 Molter Wolme Bate, W/R at 250°C/5.0 kg 16 3 m² / y lm (m²) \$ SO 62-1 Molter Habour (123°C / saturated) 2.0 3 m² / y lm (m²) \$ SO 62-1 Molter Habour (123°C / saturated) 2.0 3 m² / y lm (m²) \$ SO 62-1 Molter Habour (123°C / saturated) 2.0 3 m² / y lm (m²) \$ Uz 46A Molter Habour (123°C / saturated) 2.0 2.0 2.0 Molter Habour (140), PLC 1 (°) 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 <t< td=""><td>Relative Temp Index, Elec (2)</td><td>75</td><td>°C</td><td>UL 746B</td></t<>	Relative Temp Index, Elec (2)	75	°C	UL 746B
Relative Temp Index, Mech w/o impact (°) 75 Cell Comment Ut 7468 PHYSICAL (°) Specific Gravity 1.56 A SIM D792 Molds Shrinkage, flow, 3.2 mm (°) 0.28 & SABIC method Molds Shrinkage, flow, 3.2 mm (°) 0.57 \$ SABIC method Density 1.56 9 (m²) \$ SO 62-1 Water Absorption, (23°C / saturated) 0.23 \$ SO 62-1 Molsture Absorption (23°C / saturated) 1.6 3 m² / y lm (m²) \$ SO 62-1 Molter Wolme Bate, W/R at 250°C/5.0 kg 16 3 m² / y lm (m²) \$ SO 62-1 Molter Habour (123°C / saturated) 2.0 3 m² / y lm (m²) \$ SO 62-1 Molter Habour (123°C / saturated) 2.0 3 m² / y lm (m²) \$ SO 62-1 Molter Habour (123°C / saturated) 2.0 3 m² / y lm (m²) \$ Uz 46A Molter Habour (123°C / saturated) 2.0 2.0 2.0 Molter Habour (140), PLC 1 (°) 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 <t< td=""><td>Relative Temp Index, Mech w/impact (2)</td><td>75</td><td>°C</td><td>UL 746B</td></t<>	Relative Temp Index, Mech w/impact (2)	75	°C	UL 746B
Pristical (**) Fraction (Favity) 1.56 - ASTM D792 Mold Shrinkage, flow, 3.2 mm (**) 0.28 \$ ASIM D792 Mold Shrinkage, flow, 3.2 mm (**) 0.28 \$ ASIM D792 Mold Shrinkage, flow, 3.2 mm (**) 1.56 \$ ASIM D792 Water Absorption, (23°C / saturated) 0.23 \$ \$ 100 62-1 Molt Volume Rate, MVR at 250°C / 5.0 kg H) 0.99 ** \$ 101 133 Melt Volume Rate, MVR at 250°C / 5.0 kg H) 2.8 mm (**) U 746A 101 456 Hot-Wire Ignition (HWI), PLC 10°I 2.8 mm (**) U 746A 101 456A Hot-Wire Ignition (HWI), PLC 0°I 2.8 mm (**) U 1746A 101 456A Hot-Wire Ignition (HWI), PLC 0°I 2.0 mm (**) U 1746A 101 456A Comparative Tracking Index (**) 2.8 mm (**) U 1746A 101 456A Wire James Dilly (**) 5 2.5 101 456A 101 456A 101 456A Wire James Dilly (**) 5 2.0 101 456A 101 456A 101 456A 101 456A 101 456A	Relative Temp Index, Mech w/o impact (2)	75	°C	UL 746B
Specific Gravity 1.56 ASTM D792 Mold Shrinkage, flow, 3.2 mm ⁽¹⁾ 0.28 % SABIC method Density 1.56 9 m³ SO 1183 Water Absorption, (23°C/saturated) 0.23 60 60 Moit sture Absorption (23°C/sox RH) 0.09 % 50 62 Melt Volume Rate, MVR at 250°C/5.0 kg 16 mm/l Volume 50 133 ELECTRICAL (1)** ** ** WI 17 min 50 133 ELECTRICAL (1)** ** ** ** ** ELECTRICAL (1)** ** <t< td=""><td>PHYSICAL (1)</td><td></td><td></td><td></td></t<>	PHYSICAL (1)			
Mold Shrinkage, flow, 3.2 mm ⁽³⁾ Mold Shrinkage, xflow, 3.2 mm ⁽³⁾ Mold Shrinkage, xflow, 3.2 mm ⁽³⁾ Density 1.56 Water Absorption, (23°C/saturated) Moldsture Absorption, (23°C/saturated) Moldsture Absorption, (23°C/saturated) Moldsture Absorption, (23°C/saturated) Moldsture Absorption (23°C/sox RH)	Specific Gravity	1.56	-	ASTM D792
Model Shrinkage, xflow, 3.2 mm ⁽³⁾ 0.57 \$CP SABIC method Density 1.56 9 cm² 150 1183 Water Absorption, (23°C/saturated) 0.23 % 150 62-1 Moisture Absorption (23°C/50×RH) 0.99 ∞² / 10 min 150 62-1 Melt Volume Rate, MVR at 250°C/50 kg 10 ∞² / 10 min 150 133 ELECTRICAL ⁽¹⁾ V wm² / 10 min 150 133 ELECTRICAL ⁽¹⁾ 3.3 mm UL 746A Hot-Wire Ignition (HWI), PLC 0 ⁽²⁾ 3.3 mm UL 746A High Amp Arc Ignition (HAI), PLC 0 ⁽²⁾ 20.8 mm UL 746A Comparative Tracking Index ⁽²⁾ 50.8 mm UL 746A Ut Yellow Card Link 2 £207780-100945514 3 2 CE 60112 Ut Yellow Card Link 2 £45329-100544173 3 1 4 4 Ut Recognized, 94-9U8 Flame Class Rating 30 mm UL 94 4 Glow Wire Ignitability Temperature, 3.5 mm 75 C C 6 6 6 6	•		%	
Density 1.56 g/cm² ISO 1183 Water Absorption (23°C/saturated) 0.23 % ISO 62-1 Moistre Absorption (23°C / 50% RH) 0.09 % ISO 62 Melt Volume Rate, MVR at 250°C/5.0 kg 16 m²/10 min ISO 1133 ELECTRICAL (") U V 46A Hot-Wire Ignition (HWI), PLC 1 (2) ≥ mm UL 746A Hot-Wire Ignition (HWI), PLC 0 (2) ≥ mm UL 746A Hot-Wire Ignition (HWI), PLC 0 (2) ≥ mm UL 746A Comparative Tracking Index (2) ≥ mm UL 746A Comparative Tracking Index (2) ≥ 0.0 v EC 6012 ELECTRICAL (") E V EC 6012 EC LY 64A Momentum Index (2) 0.0 REC 6012 EC Hot-Wire Ignition (HWI), PLC 0 (2) ≥ 0.0 EC 6012 EC LY 24 (1) American (2) E 2527 (2004 (200	Mold Shrinkage, xflow, 3.2 mm (3)			
Water Absorption, (23°C/saturated) 0.23 % ISO 62-1 Moisture Absorption (23°C / 50% RH) 0.09 % ISO 62 Melt Volume Rate, MVR at 250°C/5.0 kg 16 cm³/10 min ISO 1133 ELECTRICAL.** Hot-Wire Ignition (HWI), PLC 0 ^[2] ≥0.8 mm UL 746A Hot-Wire Ignition (HMI), PLC 0 ^[2] ≥0.8 mm UL 746A High Amp Arc Ignition (HMI), PLC 0 ^[2] ≥0.8 mm UL 746A Comparative Tracking Index ^[3] ≥0.8 mm UL 746A LY Yellow Card Link (2 E207780-100945514 ≥0.8 </td <td></td> <td></td> <td></td> <td></td>				
Moisture Absorption (23°C / 50% RH) 0.09 % ISO 62 Melt Volume Rate, MVR at 250°C/5.0 kg 16 cm³/10 min ISO 1133 EECTRICAL (**) Hot-Wire Ignition (HWI), PLC 1 (**) 20.8 mm UL 746A High Amp Arc Ignition (HMI), PLC 0 (**) 20.8 mm UL 746A High Amp Arc Ignition (HMI), PLC 0 (**) 20.8 mm UL 746A Comparative Tracking Index (**) 60 v IEC 60112 ELAME CHARACTERISTICS (**) UL Yellow Card Link £207780-100945514 - - UL Yellow Card Link 2 £45329-100544173 - - UL Yellow Card Link 2 £45329-100544173 - - UL Recognized, 94-9-518 flame Class Rating 23 mm UL 94 UL Recognized, 94-9-5VB flame Class Rating 800 C IEC 60695-2-13 Glow Wire Ignitability Temperature, 3.0 mm 775 C IEC 60695-2-13 Glow Wire Ignitability Index, 3.0 mm 960 C IEC 60695-2-12 Glow Wire Flammability Index, 1.5 mm </td <td>•</td> <td></td> <td></td> <td></td>	•			
Melt Volume Rate, MVR at 250°C/5.0 kg 16 cm³/10 min ISO 1133 ELECTRICAL (¹)** 20.8 mm UL 746A Hot-Wire Ignition (HWI), PLC 0 (²) ≥0.8 mm UL 746A High Amp Arc Ignition (HAI), PLC 0 (²) ≥0.8 mm UL 746A Comparative Tracking Index (²) 600 v EC 60112 FLAME CHARACTERISTICS (²) E207780-100945514 - - - UL Yellow Card Link 2 £329-100544173 - - - UL Recognized, 94-5vB Flame Class Rating ≥0.8 mm UL 94 UL Recognized, 94-5vB Flame Class Rating ≥0.8 mm UL 94 Glow Wire Ignitability Temperature, 3.0 mm 800 C IEC 60695-2·13 Glow Wire Ignitability Temperature, 0.8 mm 775 C IEC 60695-2·13 Glow Wire Flammability Index, 3.0 mm 960 C IEC 60695-2·12 Glow Wire Flammability Index, 0.5 mm 960 C IEC 60695-2·12 Glow Wire Flammability Index, 0.5 mm 960 C IEC 60695-2·12 Glow Wire Flammabil				
ELECTRICAL ⁽¹⁾ Hot-Wire Ignition (HWI), PLC 1 ⁽²⁾ 40.8 Hot-Wire Ignition (HWI), PLC 0 ⁽²⁾ 20.8 mm UL 746A Hot-Wire Ignition (HAI), PLC 0 ⁽²⁾ 20.8 mm UL 746A High Amp Arc Ignition (HAI), PLC 0 ⁽²⁾ 600 V EC 60112 FLAME CHARACTERISTICS ⁽²⁾ UL Yellow Card Link E207780-100945514 E45329-100544173 UL 94 UL Pelow Card Link 2 E45329-100544173 UL 94 UL Recognized, 94V-0 Flame Class Rating 80.8 mm UL 94 UL 94 UL Recognized, 94-5VB Flame Class Rating 80.0 Wire Ignitability Temperature, 3.0 mm 800 C Glow Wire Ignitability Temperature, 1.5 mm 775 C Glow Wire Ignitability Temperature, 0.8 mm 750 Glow Wire Ignitability Temperature, 0.8 mm Glow Wire Ignitability Temperature, 0.8 mm 960 C Glow Wire Flammability Index, 3.0 mm 960 C Glow Wire Flammability Index, 0.8 mm 960 C Glow Wire Flammability Index, 0.8 mm 960 C G G G G G G G G G G G G				
Hot-Wire Ignition (HWI), PLC 1 (2) Hot-Wire Ignition (HWI), PLC 0 (2) High Amp Arc Ignition (HAI), PLC 0 (2) High Amp Arc Ignition (HAI), PLC 0 (2) Hother Tracking Index (2) Hother Tracking Index (2) Hother Tracking Index (2) Hother Characteristics (2) HUX-ellow Card Link UX-yellow Card Link UX-yellow Card Link 2 UX-yellow Card Link 2 UX-Recognized, 94-0-0 Flame Class Rating UX-Recognized, 94-5VB Flame Class Rating UX-Recognized, 94-5VB Flame Class Rating UX-glow Wire Ignitability Temperature, 3.0 mm Hother UX-glow Wire Ignitability Temperature, 1.5 mm Hother UX-glow Wire Ignitability Temperature, 0.8 mm Hother UX-glow Wire Ignitability Index, 3.0 mm Hother UX-glow Wire Ignitibility Index, 3.0 mm Hother UX-glow Wire Ig			,	
Hot-Wire Ignition (HWI), PLC 0 ⁽²⁾ High Amp Arc Ignition (HAI), PLC 0 ⁽²⁾ Doub and the Imperature Tracking Index ⁽²⁾ High Amp Arc Ignition (HAI), PLC 0 ⁽²⁾ Doub and the Imperature Tracking Index ⁽²⁾ Description Comparative Tracking Index ⁽³⁾ Description Tracking Index ⁽³⁾ Description Tracking Index ⁽³⁾ Description Trac		≥0.8	mm	UI 746A
High Amp Arc Ignition (HAI), PLC 0 (2) ≥0.8 mm UL 746A Comparative Tracking Index (2) 600 v EC 60112 FLAME CHARACTERISTICS (2) UL Yellow Card Link £207780-100945514 - - - UL Yellow Card Link 2 £45329-100544173 - - - UL Recognized, 94Y-0 Flame Class Rating ≥0.8 mm UL 94 UL Recognized, 94-5VB Flame Class Rating ≥0.8 mm UL 94 Glow Wire Ignitability Temperature, 3.0 mm 800 °C IEC 60695-213 Glow Wire Ignitability Temperature, 0.8 mm 750 °C IEC 60695-213 Glow Wire Flammability Index, 3.0 mm 960 °C IEC 60695-212 Glow Wire Flammability Index, 0.8 mm 960 °C IEC 60695-212 Glow Wire Flammability Index, 0.8 mm 960 °C IEC 60695-212 INJECTION MOLDING (4) Typing Temperature Drying Time 2-4 HIS Maximum M				
Comparative Tracking Index (²) 600 v Ic 60112 FLAME CHARACTERISTICS (²) V Ic 60112 UL Yellow Card Link £207780-100945514 - - UL Yellow Card Link 2 £45329-100544173 - - UL Recognized, 94V-0 Flame Class Rating ≥0.8 mm UL 94 UL Recognized, 94V-5 Brane Class Rating ≥3 mm UL 94 Glow Wire Ignitability Temperature, 3.0 mm 800 ° Ic 60695-2·13 Glow Wire Ignitability Temperature, 1.5 mm 75 ° ° Ic 60695-2·13 Glow Wire Flammability Index, 3.0 mm 960 ° ° Ic 60695-2·12 Glow Wire Flammability Index, 1.5 mm 960 ° ° Ic 60695-2·12 Glow Wire Flammability Index, 0.8 mm 960 ° ° Ic 60695-2·12 Glow Wire Flammability Index, 0.8 mm 10 − 120 ° ° Ic 60695-2·12 Drying Temperature 11 − 120 ° ° Ic 60695-2·12 Ic 60695-2·12 Drying Time 2 − 4 Ic 10 − 12 Ic 10 −				
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UL Recognized, 94-5VB Flame Class Rating ≥3 mm UL 94 Glow Wire Ignitability Temperature, 3.0 mm 800 °C IEC 60695-2-13 Glow Wire Ignitability Temperature, 1.5 mm 775 °C IEC 60695-2-13 Glow Wire Ignitability Temperature, 0.8 mm 750 °C IEC 60695-2-13 Glow Wire Flammability Index, 3.0 mm 960 °C IEC 60695-2-12 Glow Wire Flammability Index, 1.5 mm 960 °C IEC 60695-2-12 Glow Wire Flammability Index, 0.8 mm 960 °C IEC 60695-2-12 Glow Wire Flammability Index, 0.8 mm 960 °C IEC 60695-2-12 INJECTION MOLDING (4) Drying Temperature 110 − 120 °C Drying Time 2 − 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 245 − 260 °C	UL Yellow Card Link 2	<u>E45329-100544173</u>	-	-
Glow Wire Ignitability Temperature, 3.0 mm 800 °C IEC 60695-2-13 Glow Wire Ignitability Temperature, 1.5 mm 775 °C IEC 60695-2-13 Glow Wire Ignitability Temperature, 0.8 mm 750 °C IEC 60695-2-13 Glow Wire Flammability Index, 3.0 mm 960 °C IEC 60695-2-12 Glow Wire Flammability Index, 0.8 mm 960 °C IEC 60695-2-12 INJECTION MOLDING ⁽⁴⁾ ***********************************	UL Recognized, 94V-0 Flame Class Rating	≥0.8	mm	UL 94
C	UL Recognized, 94-5VB Flame Class Rating	≥3	mm	UL 94
Figure Glow Wire Ignitability Temperature, 0.8 mm 750 °C IEC 60695-2-13	Glow Wire Ignitability Temperature, 3.0 mm	800	°C	IEC 60695-2-13
Section Sect	Glow Wire Ignitability Temperature, 1.5 mm	775		IEC 60695-2-13
Glow Wire Flammability Index, 1.5 mm 960 °C IEC 60695-2-12 Glow Wire Flammability Index, 0.8 mm 960 °C IEC 60695-2-12 INJECTION MOLDING (4) Drying Temperature 110 – 120 °C Drying Time 2 – 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 245 – 260 °C	Glow Wire Ignitability Temperature, 0.8 mm	750		IEC 60695-2-13
Glow Wire Flammability Index, 0.8 mm 960 °C IEC 60695-2-12 INJECTION MOLDING ⁽⁴⁾ Drying Temperature 110 – 120 °C Example 1 Drying Time 2 – 4 Hrs Hrs Maximum Moisture Content 0.02 % Melt Temperature 245 – 260 °C	Glow Wire Flammability Index, 3.0 mm			IEC 60695-2-12
INJECTION MOLDING ⁽⁴⁾ Drying Temperature 110 – 120 °C Drying Time 2 – 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 245 – 260 °C	Glow Wire Flammability Index, 1.5 mm	960		IEC 60695-2-12
Drying Temperature 110 – 120 °C Drying Time 2 – 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 245 – 260 °C	Glow Wire Flammability Index, 0.8 mm	960	°C	IEC 60695-2-12
Drying Time 2 – 4 Hrs Maximum Moisture Content 0.02 % Melt Temperature 245 – 260 °C	INJECTION MOLDING (4)			
Maximum Moisture Content 0.02 % Melt Temperature 245 – 260 °C	Drying Temperature	110 – 120	°C	
Melt Temperature 245 – 260 °C	Drying Time	2 – 4	Hrs	
	Maximum Moisture Content	0.02	%	
Nozzle Temperature 230 – 255 °C	Melt Temperature	245 – 260	°C	
	Nozzle Temperature	230 – 255	°C	



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Front - Zone 3 Temperature	240 – 260	°C	
Middle - Zone 2 Temperature	235 – 250	°C	
Rear - Zone 1 Temperature	230 – 240	°C	
Hopper Temperature	40 – 60	°C	
Mold Temperature	40 – 100	°C	

- (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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