

LNPTM ELCRESTM DMX1435D

DESCRIPTION

LNP ELCRES DMX1435D is a UV stabilized standard flow Polycarbonate (PC) copolymer resin with diffusion effect and improved scratch resistance. This grade is a good candidate for consumer electronics, mobility interiors and other adjacent applications, which need lower scratch and diffusive effects performance.

GENERAL INFORMATION	
Features	IR Transparent, Scratch Resistance, Aesthetics/Visual effects, Transparent/Translucent, Weatherable/UV stable, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors, Bus, Automotive Exteriors
Building and Construction	Building Component
Consumer	Personal Recreation
Electrical and Electronics	Mobile Phone - Computer - Tablets, Lighting
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL (1)			
Tensile Stress, yld, Type I, 50 mm/min	77	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	60	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	7.5	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	20	%	ASTM D638
Tensile Modulus, 50 mm/min	2700	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	120	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2500	MPa	ASTM D790
Hardness, Rockwell L	110	-	ASTM D785
Hardness, Rockwell M	90	-	ASTM D785
Tensile Stress, yield, 50 mm/min	77	MPa	ISO 527
Tensile Stress, break, 50 mm/min	59	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	7	%	ISO 527
Tensile Strain, break, 50 mm/min	20	%	ISO 527
Tensile Modulus, 1 mm/min	2400	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	110	MPa	ISO 178
Flexural Modulus, 2 mm/min	2600	MPa	ISO 178
Pencil Hardness test, 1kgf	Н	-	ASTM D3363
IMPACT (1)			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812



ized impact, noticed, 20°C 30 //m ASTM D256 load impact, noticed, 30°C 30 //m ASTM D256 load impact, noticed, 30°C 1 ASTM D256 load impact, unnotiched 80°10°3 -20°C 40 10 ASTM D256 load impact, unnotiched 80°10°3 -20°C 20 Uning 60 180/10 load impact, notiched 80°10°3 -30°C 20 Uning 60 180/14 load impact, notiched 80°10°3 -30°C 20 Uning 60 180/14 Charyy 20°C, Vnotch Edgew 80°10°3 specam 22 Uning 60 179/14 Charyy 20°C, Unnotch Edgew 80°10°3 specam 18 Uning 60 179/14 Charyy 20°C, Unnotch Edgew 80°10°3 specam 18 C ASTM D256 Maryy 20°C, Unnotch Edgew 80°10°3 specam 18 C ASTM D256 Uning 18 C ASTM D256 HOT, 18,2 May 2, Cunnotch Edgew 80°10°3 specam 18 C ASTM D256 HOT, 18,2 May 2, Cunnotch Edgew 80°10°3 specam 18 C ASTM D256 HOT, 10,2 May 2, Cunnotch Edgew 80°10°3 specam 18 C	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Instrumented Dart impact Total Energy, 23°C 7 IL Bod impact, unnotched 80°10°3 +23°C 80°B 100°B 80°B 80°B 100°B 80°B 100°B 80°B 100°B 100°B 80°B 100°B 10	Izod Impact, notched, 23°C	30	J/m	ASTM D256
tool impact, unnotched 80°10°3 30°C MB MIPM BO 180/11 Izod impact, unnotched 80°10°3 30°C 20 MIPM BO 180/11 Izod impact, notched 80°10°3 30°C 20 MIPM BO 180/11 Izod impact, notched 80°10°3 30°C 20 MIPM BO 189/14 Charpy 30°C, vhorch Edgew 80°10°3 spe-Earm 25 MIPM BO 179/16 Charpy 30°C, Unnotch Edgew 80°10°3 spe-Earm 80 MIPM BO 179/16 Charpy 30°C, Unnotch Edgew 80°10°3 spe-Earm 80 MIPM BO 179/16 Charpy 30°C, Unnotch Edgew 80°10°3 spe-Earm 18 *C AST MD 64 Charpy 30°C, Unnotch Edgew 80°10°3 spe-Earm 18 *C AST MD 64 The Tool Specific More 11 *C AST MD 64 The Tool Specific More 15 *C AST MD 64 CTL, 30°C to 80°C, flow 70°G 11°C AST MD 64 CTL, 30°C to 80°C, flow 70°G 11°C AST MD 64 CTL, 30°C to 80°C, flow 70°G 10°C MO 75/M CTL, 30°C to 80°C, flow 10°C MO 75/M	Izod Impact, notched, -30°C	30	J/m	ASTM D256
tzod impact, unnotched 80°10°3 -20°C 40 km² 80 180/14 tzod impact, notched 80°10°3 -20°C 2.2 km² 50 180/14 Champy 23°C, Vaotch Edgew 80°10°3 spe-62mm 2.2 km² 50 179/16A Charpy 23°C, Unnotch Edgew 80°10°3 spe-62mm 2.5 km² 50 179/16A Charpy 30°C, Unnotch Edgew 80°10°3 spe-62mm 46 km² 50 179/16A Charpy 30°C, Unnotch Edgew 80°10°3 spe-62mm 18 °C ASTM DES Charpy 30°C, Unnotch Edgew 80°10°3 spe-62mm 18 °C ASTM DES CHEARK, "I ************************************	Instrumented Dart Impact Total Energy, 23°C	7	J	ASTM D3763
Izod Impact, notched 80°10°3 -2°3°C 2.2 Min? 80 1801 IA Izod Impact, notched 80°10°3 -30°C 2.0 Min? 50 1801 IA Charpy 23°C, chronich Edgew 80°10°3 spreSzmm 2.5 Min? 50 1791 IeA Charpy 30°C, Unnotch Edgew 80°10°3 spreSzmm N8 Min? 50 1791 IeA Charpy 30°C, Unnotch Edgew 80°10°3 spreSzmm N8 Min? 50 1791 IeA Charpy 30°C, Unnotch Edgew 80°10°3 spreSzmm 18 "C ASTM 191 IeA THERMAL************************************	Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m²	ISO 180/1U
tool (myact, notice) 801/03-30°C 20.0 kl/m² 50.189/14 Charyy 32°C, wordt Edgew 801/03-39=62mm 2.2 kl/m² 50.179/14 Charyy 32°C, wordt Edgew 801/03-39=62mm 46 kl/m² 50.179/140 Charyy 32°C, Unnotch Edgew 801/03-39=62mm 46 kl/m² 50.179/140 Charyy 32°C, Unnotch Edgew 801/03-39=62mm 48 C ASTM D1525 Chary 30°C, Unnotch Edgew 80°10°3-39=62mm 138 °C ASTM D1525 HERMAL 1° 129 °C ASTM D1525 HOT, 1,32 MPs, 3,2 mm, unnoneled 119 °C ASTM D1525 CTE, 40°C to 59°C, flow 7-05 11°C ASTM D433 CTE, 24°C to 50°C, flow 7-05 11°C ASTM D432 CTE, 23°C to 80°C, silvou 7-05 11°C ASTM D432 CTE, 23°C to 80°C, flow 7-05 11°C ASTM D432 Veat Softening Temp, Rate 8/50 136 °C 50.366 Vicat Softening Temp, Rate 8/10 15 °C 50.75/8/ Bollito Ellega Ell	Izod Impact, unnotched 80*10*3 -30°C	40	kJ/m²	ISO 180/1U
Charpy 23°C, Vnotch Edgew 80°10°3 sp=62mm 2.2 M/m² So 179/1eA Charpy 30°C, Vnotch Edgew 80°10°3 sp=62mm 2.5 M3 So 179/1eA Charpy 32°C, Unnotch Edgew 80°10°3 sp=62mm 48 M3 So 179/1eB Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm 46 M10 M10°2 So 179/1eB THEEMALTI VC ASTM D1525 M50	Izod Impact, notched 80*10*3 +23°C	2.2	kJ/m²	ISO 180/1A
Charpy 30°C, Vanotch Edgew 80°10°3 spe6zmm 25 I/Im² SO 179 [14] Charpy 32°C, Unnotch Edgew 80°10°3 spe6zmm N8 I/Im² 80 179 [14] Charpy 30°C, Unnotch Edgew 80°10°3 spe6zmm 186 I/Im² 80 179 [14] THERMAL "** Vicat Softening Temp, Rate B/50 138 °C ASIM Del38 HDT, 132 MPa, 32°mm, unannealed 119 °C ASIM Del38 CTE, 40°C to 95°C, flow 76.05 11°C ASIM Del38 CTE, 23°C to 80°C, flow 70.05 11°C 05 11359-2 CTE, 23°C to 80°C, flow 70.05 11°C 05 11359-2 CTE, 23°C to 80°C, flow 70.05 10°C 05 11359-2 CTE, 23°C to 80°C, flow 70.05 10°C 05 306 CTE, 23°C to 80°C, flow 70.00 10°C 05 306 CTE, 23°C to 80°C, flow 70.00 10°C 05 306 CTE, 23°C to 80°C, flow 70.00 10°C 05 306 CTE, 23°C to 80°C, flow 70	Izod Impact, notched 80*10*3 -30°C	2.0	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm 188 J/m² 50 179/1eU Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm 46 kJ/m² 50 179/1eU THERMAL************************************	Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	2.2	kJ/m²	ISO 179/1eA
Charpy 30°C, Unnotch Edgew 80°10°3 speachms. 10° 46 lyfine 500 179 1910 THERMILL** Vicat Softening Temp, Rate B/50 138 °C ASTM D648 HDTD, 0.45 Mips, 3.2 min, unannealed 129 °C ASTM D648 HDT, 1.82 Mips, 3.2 min, unannealed 115 °C ASTM B648 CTE, 40°C to 95°C, flow 76-05 11°C ASTM B811 CTE, 40°C to 95°C, flow 76-05 11°C SO 11359-2 CTE, 23°C to 80°C, flow 76-05 11°C SO 11359-2 CTE, 23°C to 80°C, flow 120 10°C SO 306 CTE, 23°C to 80°C, flow 138 °C SO 306 CTE, 23°C to 80°C, flow 138 °C SO 306 CTE, 23°C to 80°C, flow 138 °C SO 306 CTE, 23°C to 80°C, flow 138 °C SO 306 CTE, 23°C to 80°C, flow 10 °C SO 306 CTE, 23°C to 80°C, flow 10 °C U.746 CTE, 23°C to 80°C, flow 10 C U.746 CTE, 23°C to 80°C, flow<	Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	2.5	kJ/m²	ISO 179/1eA
THERMAL (¹) Vicat Softening Temp, Rate B/50 138 "C ASTM D648 HDT, 0.54 MPa, 3.2 mm, unannealed 129 "C ASTM D648 HDT, 1.32 MPa, 3.2 mm, unannealed 115 "C ASTM D648 CTE, 40°Ct 0 95°C, flow 7c05 1/°C ASTM D648 CTE, 40°Ct 0 95°C, flow 7c05 1/°C ASTM E831 CTE, 23°Ct 0 80°C, flow 7c05 1/°C ASTM E831 CTE, 23°Ct 0 80°C, flow 7c05 1/°C 80 1359-2 Vicat 5 oftening Temp, Rate B/50 138 "C 150 306 Vicat 5 oftening Temp, Rate B/120 138 "C 150 306 HDT/B/L 0.45 MPa flatw 80°10°4 spe-64mm 115 "C 150 75/M Relative Temp Index, Elec Cal 80 "C 10.7468 Relative Temp Index, Mech w/impact Cal 80 "C 10.7468 Relative Temp Index, Mech w/impact Cal 80 "C ASTM D792 Specific Cravity 1.18 "C ASTM D792 Density 0.20 ASTM D792 Water Absorptio	Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
Vicat Softening Temp, Rate 8/50 138 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 129 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 175 °C ASTM D648 HDT, 1.92 MPa, 3.2 mm, unannealed 76.05 1/°C ASTM D648 CTE, 40°C to 99°C, flow 76.05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 76.05 1/°C BO 11359-2 CTE, 23°C to 80°C, flow 160 10°C BO 306 CTE, 23°C to 80°C, flow 138 °C BO 306 Vicat Softening Temp, Rate 8/120 138 °C BO 306 Vicat Softening Temp, Rate 8/120 138 °C BO 306 MDT/JR1, SAMP Flatw 80°10°4 sp=64mm 115 °C BO 75/jk Relative Temp Index, Mech w/j mipact (°) 80 °C U.7468 Relative Temp Index, Mech w/j mipact (°) 80 °C U.7468 Specific Gravity 1.18 °C ASTM D792 Specific Forwity 2.18 ASTM D792 Specific Volume 3.28<	Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	46	kJ/m²	ISO 179/1eU
HDT. 0.45 MPa. 3.2 mm, unannealed 199 °C ASTM D648 HDT. 1.82 MPa. 3.2 mm, unannealed 115 °C ASTM D648 LDT. 4.9 °C to 95°C, flow 76-05 11°C ASTM E81 LDT. 4.9 °C Co 95°C, flow 76-05 11°C ASTM E81 LDT. 4.9 °C Co 95°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 150 1359-2 LDT. 3. °C to	THERMAL (1)			
HDT. 0.45 MPa. 3.2 mm, unannealed 199 °C ASTM D648 HDT. 1.82 MPa. 3.2 mm, unannealed 115 °C ASTM D648 LDT. 4.9 °C to 95°C, flow 76-05 11°C ASTM E81 LDT. 4.9 °C Co 95°C, flow 76-05 11°C ASTM E81 LDT. 4.9 °C Co 95°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 76-05 11°C BO 11359-2 LDT. 2.3 °C to 80°C, flow 150 1359-2 LDT. 3. °C to		138	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed 155 °C MSM D648 CTE. 40°Ct or 99°C, flow 760 7605 17°C MSM E831 CTE, 40°Ct or 99°C, flow 7605 17°C MSM E831 CTE, 23°Ct or 80°C, flow 7605 17°C MSM E831 CTE, 23°Ct or 80°C, flow 7605 17°C MSM E831 CTE, 23°Ct or 80°C, flow 7605 1800 1809 1809 1809 1809 1809 1809 1809				
CTE, 40°C to 95°C, flow 7E-05 1/°C ASTM E831 CTE, 40°C to 95°C, flow 7E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 7E-05 1/°C S0 11359-2 CTE, 23°C to 80°C, flow 7E-05 1/°C S0 11359-2 CTE, 23°C to 80°C, flow 7C-05 1/°C S0 306 Vicat Softening Temp, Rate 8/150 138 °C ISO 306 Vicat Softening Temp, Rate 8/120 138 °C ISO 306 HDT/B1, 0.45 MPa Flatw 80*10°4 sp=64mm 129 °C ISO 75/Bf HDT/B1, 3.8 MPa Flatw 80*10°4 sp=64mm 115 °C UL 7468 Relative Temp Index, Bicc ⁶¹ 80 °C UL 7468 Relative Temp Index, Mech w/impact ⁶² 80 °C UL 7468 Relative Temp Index, Mech w/impact ⁶² 80 °C WI 7468 Relative Temp Index, Mech w/impact ⁶² 80 °C WI 7468 Relative Temp Index, Mech w/impact ⁶² 80 °C WI 7468 Relative Temp Index, Mech w/impact ⁶² 80 SMI D792				
CTE, 40°C to 95°C, xflow 7E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 7E-05 1/°C SO 11359-2 CTE, 23°C to 80°C, xflow 7E-05 1/°C SO 11359-2 CTE, 23°C to 80°C, xflow 7E-05 1/°C SO 1369-2 Vicat Softening Temp, Rate 8/50 138 °C SO 306 HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 129 °C SO 75/bf HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 115 °C SO 75/bf Relative Temp Index, Elec ⁽²⁾ 80 °C U. 7468 Relative Temp Index, Mech w/Impact ⁽²⁾ 80 °C U. 7468 Relative Temp Index, Mech w/Impact ⁽²⁾ 80 °C U. 7468 PWYSICAL ⁽¹⁾ *** *** *** *** Specific Gravity 1.18 °C ASTM D792 Specific Volume 0.85 cm²/g ASTM D792 Water Absorption, (23°C/24hrs) 0.08 ASTM D792 Water Absorption, (23°C/55turated) 0.28 % ASTM D570 Molisture Absorptio				
CTE, 23°C to 80°C, filow 7E-05 1/°C SO 11359-2 CTE, 23°C to 80°C, xilow 7E-05 1/°C SO 10359-2 Vicat Softening Temp, Rate B/50 136 °C SO 306 Vicat Softening Temp, Rate B/120 138 °C SO 75/M HDT/JR/, 0.45 MPa Flatw 80°10°4 sp=64mm 129 °C SO 75/M Relative Temp Index, Selec (2) 80 °C U. 7468 Relative Temp Index, Mech w/ Impact (2) 80 °C U. 7468 Relative Temp Index, Mech w/ Impact (2) 80 °C U. 7468 Relative Temp Index, Mech w/ Impact (2) 80 °C U. 7468 Relative Temp Index, Mech w/ Impact (2) 80 °C U. 7468 Relative Temp Index, Mech w/ Impact (2) 80 °C U. 7468 PHYSICAL (7) SVE SVE ASTM D792 Specific Volume 0.85 cm³/g ASTM D792 Water Absorption, (23°C/Saturated) 0.8 ASTM D792 Water Absorption, (23°C/Saturated) 0.2 % ASTM D570 Molds th			•	
CTE, 23°C to 80°C, xflow 7E-05 10°C ISO 11359-2 Vicat Softening Temp, Rate 8/50 136 °C ISO 306 Vicat Softening Temp, Rate 8/120 138 °C ISO 306 HDT/Bf. 0.45 MPa Flatw 80°10'4 sp=64mm 115 °C ISO 75/Bf BDT/Af, 1.8 MPa Flatw 80°10'4 sp=64mm 115 °C UL 7468 Relative Temp Index, Elec ^[3] 80 °C UL 7468 Relative Temp Index, Mech w/impact ^[2] 80 °C UL 7468 Relative Temp Index, Mech w/impact ^[2] 80 °C UL 7468 Relative Temp Index, Mech w/impact ^[2] 80 °C UL 7468 Relative Temp Index, Mech w/impact ^[2] 80 °C UL 7468 Relative Temp Index, Mech w/impact ^[2] 80 °C UL 7468 Relative Temp Index, Mech w/impact ^[2] 80 °C WI 7468 Relative Temp Index, Mech w/impact ^[2] 80 S S MIT 7468 MED S S MIT 7468 MED S S MIT 7468 MIT 7468 MIT 7468 <th></th> <td></td> <td>•</td> <td></td>			•	
Vicas Softening Temp, Rate B/50 136 °C ISO 306 Vicas Softening Temp, Rate B/120 138 °C ISO 306 HDT/Bf, 0.45 MPs Flatw 80°10°4 sp=64mm 129 °C ISO 75/Bf HDT/Af, 1.8 MPs Flatw 80°10°4 sp=64mm 115 °C ISO 75/Jr/ Relative Temp Index, Elec (²° 80 °C UL 7468 Relative Temp Index, Mech w/impact (²) 80 °C UL 7468 Relative Temp Index, Mech w/impact (²) 80 °C UL 7468 Relative Temp Index, Mech w/o impact (²) 80 °C UL 7468 Relative Temp Index, Mech w/o impact (²) 80 °C UL 7468 Relative Temp Index, Mech w/o impact (²) 80 °C MSTM DEV PHYSICAL (") ************************************			•	
Vicat Softening Temp, Rate B/J 120 138 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 129 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 115 °C ISO 75/Af 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 Relative Temp Index, Mech w/o impact ⁽²⁾ 80 °C UL 746B PHYSICAL** Specific Gravity 1.18 °C ASTM D792 Specific Volume 0.85 cm³/g ASTM D792 Specific Volume 9,0m³ ASTM D792 Water Absorption, (23°C/Saturated) 0.28 % ASTM D792 Water Absorption, (23°C/Saturated) 0.28 % ASTM D570 Moisture Absorption, (23°C/Saturated) 0.5 - 0.8 % ASTM D570 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 0.5 - 0.8 SMID D03 SMID D03			•	
HDT/Bf. 0.45 MPa Flatw 80*10*4 sp=64mm 129 °C ISO 75/Bf HDT/Af. 1.8 MPa Flatw 80*10*4 sp=64mm 115 °C ISO 75/Af Relative Temp Index, Elec ⁽²⁾ 80 °C U. 7468 Relative Temp Index, Mech w/impact ⁽²⁾ 80 °C U. 7468 Relative Temp Index, Mech w/o impact ⁽²⁾ 80 °C U. 7468 PHYSICAL ⁽¹⁾ Specific Gravity 1.18 ~ ASTM D792 Specific Volume 1.17 ASTM D792 ASTM D792 Water Absorption, (23°C/24hrs) 0.08 % ASTM D570 Water Absorption, (23°C/24hrs) 0.08 % ASTM D570 Moisture Absorption, (23°C/50% RH, Equilibrium) 0.13 % ASTM D570 Moisture Absorption, (23°C/50% RH/24 hrs) 0.04 % ASTM D570 Moisture Absorption, (23°C/50% RH/24 hrs) 0.5-0.8 % ASTM D570 Moisture Absorption, (23°C/50% RH/24 hrs) 1.18 g/cm³ ISO 1183 Pensity 1.2 1.2 1.2 1.2 1.2 1.2				
HDT/Ar, 1.8 MPa Flatw 80°10°4 sp=64mm 115 °C ISO 75/Af Relative Temp Index, Elec (²) 80 °C UL 7468 Relative Temp Index, Mech w/impact (²) 80 °C UL 7468 Relative Temp Index, Mech w/impact (²) 80 °C UL 7468 PHYSICAL (¹) "C UL 7468 PHYSICAL (¹) "C ASTM D792 Specific Gravity 1.18 - Cm³/g ASTM D792 Specific Volume 0.85 cm³/g ASTM D792 Water Absorption, (23°C/24hrs) 0.08 % ASTM D570 Water Absorption, (23°C/24hrs) 0.08 % ASTM D570 Moisture Absorption, (23°C/55% RH, Equilibrium) 0.13 % ASTM D570 Moisture Absorption, (23°C/50% RH, Equilibrium) 0.5-0.8 % ASTM D570 Moisture Absorption, (23°C/50% RH/24 hrs) 0.5-0.8 % ASTM D570 Mold Shrinkage, flow, 3.2 mm (³) 1.18 g/m³ ISO 162-1 Moisture Absorption (23°C/50% RH) 2.1 Km² Km² ISO 62-1 Moi			°C	
Relative Temp Index, Elec (2)80°CUL 746BRelative Temp Index, Mech w/impact (2)80°CUL 746BPHYSICAL (1)Specific Gravity1.18-ASTM D792Specific Volume0.85cm³/gASTM D792Density1.17g/cm³ASTM D792Water Absorption, (23°C/24hrs)0.08%ASTM D792Water Absorption, (23°C/54hrs)0.28%ASTM D570Moisture Absorption, (50% RH, Equilibrium)0.13%ASTM D570Moisture Absorption, (50% RH, Equilibrium)0.5 - 0.8%ASTM D570Melt Flow Rate, 300°C/1.2 kgf1.54g/10 minASTM D570Melt Flow Rate, 300°C/1.2 kgf1.54g/10 minASTM D1238Density1.18g/cm³S0 1183Water Absorption, (23°C/56vRH)0.27%S0 128Moisture Absorption, (23°C/56vRH)0.13%S0 62-1Moisture Absorption, (23°C/50vRH)0.13%S0 1133Water Absorption (23°C/50vRH)0.13m³/l 10 minS0 1133Optrick (1)1.18m³/l 10 minS0 1133 <th></th> <td>115</td> <td>°C</td> <td>•</td>		115	°C	•
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) Specific Gravity 1.18		80	°C	,
Relative Temp Index, Mech w/o impact (2)80°CUL 746BPHYSICAL (1)Specific Gravity1.18-ASTM D792Specific Volume0.85cm³/gASTM D792Density1.17g/cm³ASTM D792Water Absorption, (23°C/24hrs)0.08%ASTM D570Moisture Absorption, (50°K RH, Equilibrium)0.13%ASTM D570Moisture Absorption, (23°C/50% RH/24 hrs)0.04%ASTM D570Mold Shrinkage, flow, 3.2 mm (3)0.5 - 0.8%ASIM D570Melt Flow Rate, 300°C/1.2 kgf15.4g/l 0 minASTM D1238Density1.18g/cm³ISO 1183Water Absorption, (23°C/50% RH)0.27%ISO 62-1Moisture Absorption (23°C/50% RH)0.13%ISO 62-1Moisture Absorption (23°C/50% RH)0.13%ISO 62-1Moisture Absorption (23°C/50% RH)0.13%ASTM D1033Melt Volume Rate, MVR at 300°C/1.2 kg14cm³/J 0 minISO 1133OPTICAL (1)Light Transmission at 2.0 mm85%ASTM D1003Haze, 2mmSBCSBCSBC CentrolLight CHARACTERISTICS (2)		80	°C	UL 746B
PHYSICAL (¹¹) Specific Gravity 1.18 - ASTM D792 Specific Volume 0.85 cm³/g ASTM D792 Density 1.17 g/cm³ ASTM D792 Water Absorption, (23°C/24hrs) 0.08 % ASTM D570 Water Absorption, (23°C/Saturated) 0.28 % ASTM D570 Moisture Absorption, (23°C/50% RH, Equilibrium) 0.13 % ASTM D570 Moisture Absorption, (23°C/50% RH/24 hrs) 0.04 % ASTM D570 Mold Shrinkage, flow, 3.2 mm (³) 0.5 - 0.8 % ASTM D570 Melt Flow Rate, 300°C/1.2 kgf 15.4 g/cm³ ASTM D1238 Density 1.18 g/cm³ ISO 62-1 Moisture Absorption (23°C/50% RH) 0.27 % ISO 62-1 Melt Volume Rate, MVR at 300°C/1.2 kg 14 cm³/10 min ISO 1133 Optical (¹¹) 1 cm²/10 min ISO 162-1 Unity of the Volume Rate, MVR at 300°C/1.2 kg 14 cm²/10 min ISO 162-1 Unity of the Volume Rate, MVR at 300°C/1.2 kg 5 </th <th></th> <th></th> <th>°C</th> <th></th>			°C	
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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
UL Recognized, 94HB Flame Class Rating	≥0.6	mm	UL 94
INJECTION MOLDING (4)			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	295 – 315	°C	
Nozzle Temperature	290 – 310	°C	
Front - Zone 3 Temperature	295 – 315	°C	
Middle - Zone 2 Temperature	280 – 305	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	70 – 95	°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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