



Americas: COMMERCIAL

Lexan* BPL1000 Polycarbonate (PC) resin is an injection moldable grade featuring high flow and good impact peroformance. It contains non-chlorinated and non-brominated flame retardant systems with UL-94 V0 rating at 0.8mm. Lexan BPL1000 resin offers various opaque color options and is ideal for thin wall applications.

Property

MECHANICAL Value Unit Standard Tensile Stress, yild, Type I, 50 mm/min 63 MPa ASTM D 638 Tensile Stress, brk, Type I, 50 mm/min 4.7 % ASTM D 638 Tensile Stress, brk, Type I, 50 mm/min 96.3 % ASTM D 638 Tensile Modulus, 5 mm/min 2670 MPa ASTM D 638 Flexural Stress, yiel, 1.3 mm/min, 50 mm span 102 MPa ASTM D 790 Flexural Modulus, 5 mm/min 64 MPa ISO 527 Tensile Stress, yield, 50 mm/min 64 MPa ISO 527 Tensile Stress, yield, 50 mm/min 4.7 % ISO 527 Tensile Modulus, 1 mm/min 96.8 % ISO 527 Tensile Modulus, 1 mm/min 94.4 MPa ISO 178 Flexural Stress, yield, 20 mm/min 2360 MPa ISO 178 Flexural Modulus, 1 mm/min 2460 MPa ISO 178 Tensile Modulus, 1 mm/min 2360 MPa ISO 178 Flexural Modulus, 2 mm/min 14 MPa ISO 178 Teav	TYPICAL PROPERTIES ⁽¹⁾			
Tensile Strass, brk, Type I, 50 mm/min 51 MPa ASTM D 638 Tensile Strain, ydt, Type I, 50 mm/min 4.7 % ASTM D 638 Tensile Strain, ydt, Type I, 50 mm/min 96.3 % ASTM D 638 Tensile Modulus, 5 mm/min 96.3 % ASTM D 638 Flexural Stress, yld, 1.3 mm/min, 50 mm span 102 MPa ASTM D 790 Flexural Modulus, 5 mm/min 64 MPa ISO 527 Tensile Strais, yleid, 50 mm/min 64 MPa ISO 527 Tensile Strais, yleid, 50 mm/min 64 MPa ISO 527 Tensile Strais, yleid, 50 mm/min 4.7 % ISO 527 Tensile Strais, yleid, 2 mm/min 94 MPa ISO 527 Tensile Modulus, 1 mm/min 2460 MPa ISO 527 Tensile Modulus, 2 mm/min 2360 MPa ISO 178 Flexural Modulus, 2 mm/min 2360 MPa ISO 178 Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched, 30°C NA J/m ASTM D 256	MECHANICAL	Value	Unit	Standard
Tensile Strain, yld, Type I, 50 mm/min 4.7 % ASTM D 638 Tensile Strain, brk, Type I, 50 mm/min 96.3 % ASTM D 638 Flexural Stress, yld, 1.3 mm/min, 50 mm span 102 MPa ASTM D 638 Flexural Modulus, 5. mm/min, 50 mm span 102 MPa ASTM D 790 Flexural Modulus, 5. mm/min, 50 mm span 2660 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 64 MPa ISO 527 Tensile Stress, break, 50 mm/min 53 MPa ISO 527 Tensile Strain, break, 50 mm/min 4.7 % ISO 527 Tensile Strain, break, 50 mm/min 2460 MPa ISO 527 Tensile Modulus, 1 mm/min 2460 MPa ISO 527 Flexural Stress, yield, 2 mm/min 94 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched 80°10°4 +23°C 17 KJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 17 KJ/m² IS	Tensile Stress, yld, Type I, 50 mm/min	63	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min 96.3 % ASTM D 638 Tensile Modulus, 5 mm/min 2870 MPa ASTM D 638 Flexural Stress, yld, 1.3 mm/min, 50 mm span 102 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2660 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 64 MPa ISO 527 Tensile Strain, yield, 50 mm/min 4.7 % ISO 527 Tensile Strain, yield, 50 mm/min 4.7 % ISO 527 Tensile Strain, break, 50 mm/min 94.8 MPa ISO 527 Tensile Modulus, 1 mm/min 2460 MPa ISO 527 Tensile Modulus, 2 mm/min 94 MPa ISO 527 Flexural Modulus, 2 mm/min 2360 MPa ISO 178 IPMPACT Value Unit Standard Izod Impact, notched, 30°C N/A J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 2763 Izod Impact, notched 80*10*4 *23°C 17 KJ/m² ISO 179/1eA <	Tensile Stress, brk, Type I, 50 mm/min	51	MPa	ASTM D 638
Tensile Modulus, 5 mm/min 2670 MPa ASTM D 638 Flexural Stress, yid, 1.3 mm/min, 50 mm span 102 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2660 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2660 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 64 MPa ISO 527 Tensile Stress, break, 50 mm/min 4.7 % ISO 527 Tensile Strain, preak, 50 mm/min 96.8 % ISO 527 Tensile Modulus, 1 mm/min 2460 MPa ISO 527 Tensile Modulus, 2 mm/min 94.4 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched 30°10°4 +23°C 17 k.J/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 17 k.J/m² ISO 180/1A Izod Impact, notched 80°10°4 +39°C 17 k.J/m² ISO 180/1A Izod Impact, notched 80°10°4 sp=62mm 17 k.J/m² ISO 1	Tensile Strain, yld, Type I, 50 mm/min	4.7	%	ASTM D 638
Flexural Stress, yild, 1.3 mm/min, 50 mm span 102 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2660 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 64 MPa ISO 527 Tensile Stress, break, 50 mm/min 53 MPa ISO 527 Tensile Strain, yield, 50 mm/min 96.8 % ISO 527 Tensile Strain, break, 50 mm/min 96.8 % ISO 527 Tensile Strain, break, 50 mm/min 94.4 MPa ISO 527 Tensile Stress, yield, 2 mm/min 94.4 MPa ISO 178 Flexural Modulus, 1 mm/min 2360 MPa ISO 178 Flexural Modulus, 2 mm/min 2360 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C A60 J/m ASTM D 256 Izod Impact, notched 80*10*4 +23°C 17 K.J/m² ISO 180/1A Zod Impact, notched 80*10*4 +23°C 17 K.J/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 17 K.J/m² ISO 180/1A </td <td>Tensile Strain, brk, Type I, 50 mm/min</td> <td>96.3</td> <td>%</td> <td>ASTM D 638</td>	Tensile Strain, brk, Type I, 50 mm/min	96.3	%	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span 2660 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 64 MPa ISO 527 Tensile Stress, break, 50 mm/min 53 MPa ISO 527 Tensile Strain, break, 50 mm/min 4.7 % ISO 527 Tensile Strain, break, 50 mm/min 96.8 % ISO 527 Tensile Modulus, 1 mm/min 94.8 % ISO 527 Tensile Modulus, 2 mm/min 2460 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Istrumented Impact Total Energy, 23°C 48 J ASTM D 256 Istrumented Impact Total Energy, 23°C 12 k.J/m2 ISO 180/1A Izod Impact, notched 80°10'4 +23°C 17 k.J/m2 ISO 180/1A Izod Impact, notched 80°10'4 sp=62mm 17 k.J/m2 ISO 180/1A Izod Impact, notched 80°10'4 sp=62mm 17 k.J/m2 ISO 180/1A Izod Impact, otched 80°10'4 sp=62mm 17 k.J/m2 ISO 180/1A <td>Tensile Modulus, 5 mm/min</td> <td>2670</td> <td>MPa</td> <td>ASTM D 638</td>	Tensile Modulus, 5 mm/min	2670	MPa	ASTM D 638
Tensile Stress, yield, 50 mm/min 64 MPa ISO 527 Tensile Stress, break, 50 mm/min 53 MPa ISO 527 Tensile Strain, yield, 50 mm/min 4.7 % ISO 527 Tensile Strain, break, 50 mm/min 96.8 % ISO 527 Tensile Modulus, 1 mm/min 2460 MPa ISO 527 Tensile Strain, break, 50 mm/min 94 MPa ISO 527 Tensile Strain, break, 50 mm/min 2460 MPa ISO 527 Tensile Strain, break, 50 mm/min 2460 MPa ISO 527 Tensile Strain, break, 50 mm/min 2460 MPa ISO 178 Flexural Modulus, 2 mm/min 2460 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 3763 Izod Impact, notched 80*10*4 +23°C 17 KJ/m2 ISO 180/1A Izod Impact, notched 80*10*4 +23°C 17 KJ/m2 ISO 180/1A Izo	Flexural Stress, yld, 1.3 mm/min, 50 mm span	102	MPa	ASTM D 790
Tensile Stress, break, 50 mm/min 53 MPa ISO 527 Tensile Strain, yield, 50 mm/min 4.7 % ISO 527 Tensile Boulus, 1 mm/min 966.8 % ISO 527 Flexural Stress, yield, 2 mm/min 2460 MPa ISO 527 Flexural Stress, yield, 2 mm/min 94 MPa ISO 178 Flexural Modulus, 1 mm/min 2360 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched, 30°C NNA J/m ASTM D 256 Izod Impact, notched 80°10°4 +23°C 48 J ASTM D 256 Izod Impact, notched 80°10°4 +23°C 17 kJ/m2 ISO 180/1A Izod Impact, notched 80°10°4 +23°C 17 kJ/m2 ISO 180/1A Izod Impact, notched 80°10°4 +23°C 17 kJ/m2 ISO 180/1A Izod Impact, notched 80°10°4 +23°C 17 kJ/m2 ISO 180/1A Izod Impact, notched 80°10°4 +23°C 17 kJ/m2 ISO 179/1eA	Flexural Modulus, 1.3 mm/min, 50 mm span	2660	MPa	ASTM D 790
Tensile Strain, yield, 50 mm/min 4.7 % ISO 527 Tensile Strain, break, 50 mm/min 96.8 % ISO 527 Tensile Modulus, 1 mm/min 2460 MPa ISO 527 Flexural Stress, yield, 2 mm/min 94 MPa ISO 57 Flexural Modulus, 2 mm/min 94 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched, 30°C N/A J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 3763 Izod Impact, notched 80°10°4 +23°C 17 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +30°C 11 KJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +30°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +30°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +30°C 12 KJ/m² ISO 180/1A <tr< td=""><td>Tensile Stress, yield, 50 mm/min</td><td>64</td><td>MPa</td><td>ISO 527</td></tr<>	Tensile Stress, yield, 50 mm/min	64	MPa	ISO 527
Tensile Strain, break, 50 mm/min 96.8 % ISO 527 Tensile Modulus, 1 mm/min 2460 MPa ISO 527 Flexural Stress, yield, 2 mm/min 94 MPa ISO 178 Flexural Modulus, 2 mm/min 2360 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 3763 Izod Impact, notched 80°10°4 + 23°C 17 kJ/m2 ISO 180/1A Izod Impact, notched 80°10°4 + 23°C 12 kJ/m2 ISO 180/1A Izod Impact, notched 80°10°4 + 23°C 12 kJ/m2 ISO 180/1A Izod Impact, notched 80°10°4 - 30°C 12 kJ/m2 ISO 180/1A Cad Impact, notched 80°10°4 - 43°C 12 kJ/m2 ISO 180/1A Cad Impact, notched 80°10°4 - 43°C 12 kJ/m2 ISO 180/1A Zood Impact, notched 80°10°4 - 43°C 12 kJ/m2 ISO 180/1A Zood Impact, notched 80°10°4 - 43°C 12 kJ/m2 ISO 179	Tensile Stress, break, 50 mm/min	53	MPa	ISO 527
Tensile Modulus, 1 mm/min 2460 MPa ISO 527 Flexural Stress, yield, 2 mm/min 94 MPa ISO 178 Flexural Modulus, 2 mm/min 2360 MPa ISO 178 IMPACT 2360 MPa ISO 178 Izod Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched, 30°C N/A J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 256 Izod Impact, notched 80°10°4 +23°C 17 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 17 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 17 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 12 kJ/m² ISO 178/1A Izod Impact, notched 80°10°4 +23°C 12 kJ/m² ISO 178/1A Izod Impact, notched 80°10°4 +23°C 17 kJ/m² ISO 178/1A	Tensile Strain, yield, 50 mm/min	4.7	%	ISO 527
Flexural Stress, yield, 2 mm/min 94 MPa ISO 178 Flexural Modulus, 2 mm/min 2360 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched, -30°C N/A J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 3763 Izod Impact, notched 80*10*4 +23°C 17 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 +23°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 sp=62mm 17 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 HDT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM D 53-2 GTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE,	Tensile Strain, break, 50 mm/min	96.8	%	ISO 527
Flexural Modulus, 2 mm/min 2360 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched, 30°C N/A J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 3763 Izod Impact, notched 80°10°4 +23°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 12 kJ/m² ISO 180/1A Cold mpact, notched 80°10°4 +23°C 12 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°4 sp=62mm 17 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 HDT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 848 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, 40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, 40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2	Tensile Modulus, 1 mm/min	2460	MPa	ISO 527
IMPACT Value Unit Standard Izod Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched, -30°C N/A J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 3763 Izod Impact, notched 80*10*4 +23°C 17 KJ/m² ISO 180/1A Izod Impact, notched 80*10*4 +23°C 17 KJ/m² ISO 180/1A Izod Impact, notched 80*10*4 +23°C 17 KJ/m² ISO 180/1A Izod Impact, notched 80*10*4 +23°C 12 KJ/m² ISO 180/1A Value Umit Standard ISO 180/1A Volars 23°C, V-notch Edgew 80*10*4 sp=62mm 17 KJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 DT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2	Flexural Stress, yield, 2 mm/min	94	MPa	ISO 178
Izod Impact, notched, 23°C 600 J/m ASTM D 256 Izod Impact, notched, -30°C N/A J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 3763 Izod Impact, notched 80°10°4 +23°C 17 k.J/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 12 k.J/m² ISO 180/1A Izod Impact, notched 80°10°4 +30°C 12 k.J/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°4 sp=62mm 17 k.J/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°4 sp=62mm 17 k.J/m² ISO 180/1A Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 DT, 0.45 MPa, 3.2 mn, unannealed 105 °C ASTM D 1525 DT, 0.45 MPa, 3.2 mn, unannealed 7.E-05 1/°C ASTM D 1525 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05	Flexural Modulus, 2 mm/min	2360	MPa	ISO 178
Izod Impact, notched, -30°C N/A J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 48 J ASTM D 3763 Izod Impact, notched 80*10*4 +23°C 17 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 +23°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 sp=62mm 17 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 17 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 HDT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 1306 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 1359-2 Ball Pressure Test, 75°C +/- 2°C PASS - IEC 60695	ІМРАСТ	Value	Unit	Standard
Instrumented Impact Total Energy, 23°C 48 J ASTM D 3763 Izod Impact, notched 80°10°4 +23°C 17 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +30°C 12 kJ/m² ISO 180/1A Charpy 23°C, V -notch Edgew 80°10°4 sp=62mm 17 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 HDT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 GTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 GTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/-2°C PASS - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 112 °C ISO 306 HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm 96 °C ISO	Izod Impact, notched, 23°C	600	J/m	ASTM D 256
Izod Impact, notched 80*10*4 +23°C 17 kJ/m2 ISO 180/1A Izod Impact, notched 80*10*4 -30°C 12 kJ/m2 ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 17 kJ/m2 ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 HDT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 306 Vicat Softening Temp, Rate B/50 112 °C ISO 306 Vicat Softening Temp, Rate B/120 114 °C ISO 306	Izod Impact, notched, -30°C	N/A	J/m	ASTM D 256
Izod Impact, notched 80*10*4 -30°C 12 kJ/m2 ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 17 kJ/m2 ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 HDT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C PASS - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 112 °C ISO 306 Vicat Softening Temp, Rate B/120 114 °C ISO 306 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 96 °C ISO 75/Af	Instrumented Impact Total Energy, 23°C	48	J	ASTM D 3763
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 17 kJ/m2 ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 HDT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C PASS - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 112 °C ISO 306 Vicat Softening Temp, Rate B/120 114 °C ISO 306 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 80 °C UL 746B	Izod Impact, notched 80*10*4 +23°C	17	kJ/m²	ISO 180/1A
THERMALValueUnitStandardVicat Softening Temp, Rate B/50111°CASTM D 1525HDT, 0.45 MPa, 3.2 mm, unannealed105°CASTM D 648CTE, -40°C to 40°C, flow7.E-051/°CASTM E 831CTE, -40°C to 40°C, xflow7.E-051/°CASTM E 831CTE, -40°C to 40°C, flow7.E-051/°CISO 11359-2CTE, -40°C to 40°C, xflow7.E-051/°CISO 11359-2Vicat Softening Temp, Rate B/50112°CIBC 60695-10-2Vicat Softening Temp, Rate B/50114°CISO 306Vicat Softening Temp, Rate B/120114°CISO 306HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm96°CUL 746BRelative Temp Index, Elec80°CUL 746BRelative Temp Index, Mech w/impact80°CUL 746BPHYSICALValueUnitStandard	Izod Impact, notched 80*10*4 -30°C	12	kJ/m²	ISO 180/1A
Vicat Softening Temp, Rate B/50 111 °C ASTM D 1525 HDT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C PASS - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 112 °C ISO 306 Vicat Softening Temp, Rate B/120 114 °C ISO 306 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 96 °C UL 746B Relative Temp Index, Elec 80 °C UL 746B Relative Temp Index, Mech w/impact 80 °C UL 746B	Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	17	kJ/m²	ISO 179/1eA
HDT, 0.45 MPa, 3.2 mm, unannealed 105 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C PASS - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 112 °C ISO 306 Vicat Softening Temp, Rate B/120 114 °C ISO 306 HDT/Af, 1.8 MPa Flatw 80°10*4 sp=64mm 96 °C UL 746B Relative Temp Index, Elec 80 °C UL 746B Relative Temp Index, Mech w/impact 80 °C UL 746B	THERMAL	Value	Unit	Standard
CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C PASS - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 112 °C ISO 306 Vicat Softening Temp, Rate B/120 114 °C ISO 306 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 96 °C ISO 75/Af Relative Temp Index, Elec 80 °C UL 746B Relative Temp Index, Mech w/impact 80 °C UL 746B PHYSICAL Value Unit Standard	Vicat Softening Temp, Rate B/50	111	°C	ASTM D 1525
CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C PASS - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 112 °C ISO 306 Vicat Softening Temp, Rate B/120 114 °C ISO 306 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 96 °C ISO 75/Af Relative Temp Index, Elec 80 °C UL 746B Relative Temp Index, Mech w/impact 80 °C UL 746B PHYSICAL Value Unit Standard	HDT, 0.45 MPa, 3.2 mm, unannealed	105	°C	ASTM D 648
CTE, -40°C to 40°C, flow7.E-051/°CISO 11359-2CTE, -40°C to 40°C, xflow7.E-051/°CISO 11359-2Ball Pressure Test, 75°C +/- 2°CPASS-IEC 60695-10-2Vicat Softening Temp, Rate B/50112°CISO 306Vicat Softening Temp, Rate B/120114°CISO 306HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm96°CISO 75/AfRelative Temp Index, Elec80°CUL 746BRelative Temp Index, Mech w/impact80°CUL 746BPHYSICALValueUnitStandard	CTE, -40°C to 40°C, flow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow7.E-051/°CISO 11359-2Ball Pressure Test, 75°C +/- 2°CPASS-IEC 60695-10-2Vicat Softening Temp, Rate B/50112°CISO 306Vicat Softening Temp, Rate B/120114°CISO 306HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm96°CISO 75/AfRelative Temp Index, Elec80°CUL 746BRelative Temp Index, Mech w/impact80°CUL 746BRelative Temp Index, Mech w/o impact80°CUL 746BPHYSICALValueUnitStandard	CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ASTM E 831
Ball Pressure Test, 75°C +/- 2°CPASS-IEC 60695-10-2Vicat Softening Temp, Rate B/50112°CISO 306Vicat Softening Temp, Rate B/120114°CISO 306HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm96°CISO 75/AfRelative Temp Index, Elec80°CUL 746BRelative Temp Index, Mech w/impact80°CUL 746BRelative Temp Index, Mech w/o impact80°CUL 746BPHYSICALValueUnitStandard	CTE, -40°C to 40°C, flow	7.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50112°CISO 306Vicat Softening Temp, Rate B/120114°CISO 306HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm96°CISO 75/AfRelative Temp Index, Elec80°CUL 746BRelative Temp Index, Mech w/impact80°CUL 746BRelative Temp Index, Mech w/o impact80°CUL 746BPHYSICALValueUnitStandard	CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120114°CISO 306HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm96°CISO 75/AfRelative Temp Index, Elec80°CUL 746BRelative Temp Index, Mech w/impact80°CUL 746BRelative Temp Index, Mech w/o impact80°CUL 746BPHYSICALValueUnitStandard	Ball Pressure Test, 75°C +/- 2°C	PASS	-	IEC 60695-10-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm96°CISO 75/AfRelative Temp Index, Elec80°CUL 746BRelative Temp Index, Mech w/impact80°CUL 746BRelative Temp Index, Mech w/o impact80°CUL 746BPHYSICALValueUnitStandard	Vicat Softening Temp, Rate B/50	112	°C	ISO 306
Relative Temp Index, Elec80°CUL 746BRelative Temp Index, Mech w/impact80°CUL 746BRelative Temp Index, Mech w/o impact80°CUL 746BPHYSICALValueUnitStandard	Vicat Softening Temp, Rate B/120	114	°C	ISO 306
Relative Temp Index, Mech w/impact80°CUL 746BRelative Temp Index, Mech w/o impact80°CUL 746BPHYSICALValueUnitStandard	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	96	°C	ISO 75/Af
Relative Temp Index, Mech w/o impact80°CUL 746BPHYSICALValueUnitStandard	Relative Temp Index, Elec	80	°C	UL 746B
PHYSICAL Value Unit Standard	Relative Temp Index, Mech w/impact	80	°C	UL 746B
	Relative Temp Index, Mech w/o impact	80	°C	UL 746B
Specific Gravity 1.16 - ASTM D 792	PHYSICAL	Value	Unit	Standard
	Specific Gravity	1.16	-	ASTM D 792

Mold Shrinkage on Tensile Bar, flow (2)	0.5 - 0.7	%	SABIC Method
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 300°C/1.2 kgf	25.2	g/10 min	ASTM D 1238
Density	1.2	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.35	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	23	cm³/10 min	ISO 1133
ELECTRICAL	Value	Unit	Standard
Dielectric Strength, in oil, 1.6 mm	27	kV/mm	ASTM D 149
Volume Resistivity	>1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Relative Permittivity, 50/60 Hz	3	-	IEC 60250
Relative Permittivity, 1 MHz	2.9	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.03	-	IEC 60250
Dissipation Factor, 1 MHz	0.01	-	IEC 60250
Comparative Tracking Index	200	V	IEC 60112
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Recognized, 94V-2 Flame Class Rating (3)	0.45	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating (3)	0.8	mm	UL 94
Glow Wire Flammability Index 960°C, passes at	1	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	800	°C	IEC 60695-2-13
Oxygen Index (LOI)	36	%	ISO 4589
		Source GN	D, last updated:02/06/20

Processing

Parameter **Injection Molding** Value Unit Drying Temperature 90 °C Drying Time 4 hrs Maximum Moisture Content 0.02 % °С Melt Temperature 280 - 300 °C 270 - 290 Nozzle Temperature Front - Zone 3 Temperature 280 - 300 °C °C Middle - Zone 2 Temperature 270 - 290 260 - 280 °C Rear - Zone 1 Temperature Hopper Temperature 60 - 80 °C °C Mold Temperature 90

Source GMD, last updated:02/06/2004

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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