

Revision 20231109

LEXANTM VISUALFXTM RESIN FXD923A

DESCRIPTION

Transparent/translucent PC for light diffusion special effects. UV-stabilized. Brominated FR. Color package may affect performance.

TYPICAL PROPERTY VALUES

MECKANNCA.VisiteTensile Stress, id. Type I, 50 mm / min62MPaATM D638Tensile Stress, id. Type I, 50 mm / min66%ATM D638Tensile Strain, id. Type I, 50 mm / min125%ATM D638Tensile Strain, id. Type I, 50 mm / min2410MPaATM D638Tensile Stress, ided, 50 mm / min60MPa60527Tensile Stress, ided, 50 mm / min60MPa60527Tensile Stress, ided, 50 mm / min6%60527Tensile Stress, ided, 50 mm / min6%%%Tensile Stress, ided, 50 mm / min6%%%Tensile Stress, ided, 50 mm / min6	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tensile Stress, brk, Type I, 50 mm/min66MPaASTM D638Tensile Strain, ydt, Type I, 50 mm/min125%ASTM D638Tensile Strain, brk, Type I, 50 mm/min125%ASTM D638Tensile Stress, break, 50 mm/min63MPaISD 527Tensile Stress, break, 50 mm/min60MPaISD 527Tensile Stress, break, 50 mm/min60%ISD 527Tensile Stress, break, 50 mm/min60%ISD 527Tensile Stress, break, 50 mm/min60%ISD 527Tensile Stress, break, 50 mm/min250MPaISD 527Tensile Stress, yield, 2 mm/min2300MPaISD 178Ball Indentation Hardness, H358(30)90MPaISD 178Ball Indentation Hardness, H358(30)200MPaISD 178Ball Indentation Hardnes, H358(30)120MPaISD 180/10Lod Impact, notched 80°10°3 40°C75JASTM D790Lod Impact, notched 80°10°3 40°CNSMPaISD 180/10Lod Impact, notched 80°	MECHANICAL ⁽¹⁾			
Tensile Strain, John, Type J. 50 mm/min6%AFTM D638Tensile Strain, John, Type J. 50 mm/min125%AFTM D638Tensile Strain, John, Type J. 50 mm/min6.3MPa050 527Tensile Strain, Jied, 50 mm/min6.0%0.50 527Tensile Strain, Jied, 50 mm/min6.3%0.50 527Tensile Madulus, 1 mm/min, 50 mm span9.6MPaASTM D700Plexural Stress, Vid. 1.3 mm/min, 50 mm span2.300MPa0.50 178Plexural Stress, Vid. 2, mm/min9.0MPa6.01 78Ball Indentation Hardness, HS58/309.0MPa0.50 178Ball Indentation Hardness, HS58/309.0MPa6.50 178Ized Impact, notched, 23°C76JASTM 0265Ized Impact, notched 80°10°3 +23°C162M/ma150 180/114Ized Impact, notched 80°10°3 +23°CN8M/ma150 180/114Ized Impact, notched 80°10°3 +23°C163M/ma150 180/114Ized Impact, notched 80°10°3 +23°C184M/ma150 180/114Ized Impact, notched 80°10°3 +23°CN8M/ma150 180/114Ized Impact, notched 80°10°3 +26°C14150 180/114150 180/114Ized Impact, notched 80°10°3 +26°C184M/ma150 180/114Ized Impact, notched 80°10°3 +26°C163160	Tensile Stress, yld, Type I, 50 mm/min	62	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 m/ min125%ATM D638Tensile Modulus, 50 mm / min2410MPaASTM D638Tensile Stress, yield, 50 mm / min6MPaB0 527Tensile Stress, beak, 50 mm / min6%B0 527Tensile Stress, beak, 50 mm / min6%B0 527Tensile Stress, by Ma / min85%B0 527Tensile Stress, by Ma / min9MPaB0 527Tensile Modulus, 1 mm / min, 50 mm span96MPaASTM 0790Flexural Stress, yield, 2 mm / min90MPaB0 178Flexural Stress, yield, 2 mm / min90MPaB0 178Ball Indentation Hardness, H383/3095MPaB0 178Ball Indentation Hardness, H383/3095MPaB0 178Instrumented Dart Impact Total Energy, 23°C80MPaB0 180 / 10Izod Impact, unotched 80°10°3 +23°C80M/m2B0 180 / 10Izod Impact, unotched 80°10°3 +23°C70Kl mr ² B0 180 / 10Izod Impact, unotched 80°10°3 +23°C73Kl mr ² B0 180 / 10Izod Impact, unotched 80°10°3 +25°C14Kl mr ² B0 180 / 10Izod Impact, unotched 80°10°3 +25°C88Kl mr ² B0 180 / 10Izod Impact, unotched 80°10°3 +25°C14Kl mr ² B0 180 / 10Izod Impact, unotched 80°10°3 +25°C88Kl mr ² B0 180 / 10Izod Impact, unotched 80°10°3 +25°C14Kl mr ² B0 180 / 10Izod Impact, unotched 80°10°3 +55°C14K	Tensile Stress, brk, Type I, 50 mm/min	66	MPa	ASTM D638
Tensile Modulus, 50 mm/min2410MPaASTM D638Tensile Stress, yield, 50 mm/min63MPaISO 527Tensile Stress, break, 50 mm/min60%ISO 527Tensile Stress, break, 50 mm/min6%ISO 527Tensile Strain, break, 50 mm/min85%ISO 527Tensile Strain, break, 50 mm/min85%ISO 527Tensile Strain, break, 50 mm/min, 50 mm span96MPaISO 527Flexural Stress, yield, 2 mm/min, 50 mm span96MPaISO 178Flexural Stress, yield, 2 mm/min90MPaISO 178Ball Indentation Hardness, H358/30920MPaISO 178Ball Indentation Hardness, H358/3095MPaISO 180/10Ibdumpact, notched, 23°C76JASTM 0263Instrumented Dart Impact Total Energy, 23°C76JASTM 03763Ized Impact, notched 80°10°3 -92°CN8M/m ² ISO 180/14Ized Impact, notched 80°10°3 -96°Emm14M/m ² ISO 180/14Ized Impact, notched 80°10°3 -96°EmmN8M/m ² ISO 180/14Ized Impact, notched 80°10°3 -96°EmmN8M/m ² ISO 180/14Ized Impact, notched 80°10°3 -96°Emm14M/m ² <td>Tensile Strain, yld, Type I, 50 mm/min</td> <td>6</td> <td>%</td> <td>ASTM D638</td>	Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D638
Tenile Stress, yield, 50 mm/min63MPa80.527Tenile Strain, yield, 50 mm/min60MPa80.527Tenile Strain, yield, 50 mm/min63%80.527Tensile Modulus, 1 mm/min2350MPa80.527Tensile Modulus, 1.3 mm/min, 50 mm span96MPaATIM D790Rexarl Modulus, 1.3 mm/min, 50 mm span2360MPaS0.178Revarl Modulus, 1.3 mm/min, 50 mm span90MPaS0.178Revarl Modulus, 2 mm/min2300MPaS0.178Ball Indentation Hardness, H358/3095MPaS0.2039-1Instrumented Dart Impact, notched, 23°C76MPaS0.102Instrumented Dart Impact, notched 80°10°3 +23°C76JASIM D796Izod Impact, notched 80°10°3 +23°C76JS0.180/14Izod Impact, notched 80°10°3 +23°C73S0.180/14S0.180/14Izod Impact, notched 80°10°3 +23°C73S0.180/14S0.180/14Izod Impact, notched 80°10°3 +23°C73S0.180/14S0.180/14Izod Impact, notched 80°10°3 +23°C73S0.180/14S0.180/14Izod Impact, notched 80°10°3 +23°C88K/m²S0.180/14Izod Impact, notched 80°10°3 +23°C73S0.180/14S0.179/1eAIzod Impact, notched 80°10°3 +23°C88K/m²S0.179/1eAIzod Impact, notched 80°10°3 +23°C88K/m²S0.179/1eACharpy 23°C, Vnotch Edgew 80°10°3 speEarm14K/m²S0.179/1eACharpy 23°C, Unotch Edgew 80°10°3 speEarm123	Tensile Strain, brk, Type I, 50 mm/min	125	%	ASTM D638
Tensile Stresh, So mn/min60MPa50 527Tensile Strain, yeld, So mn/min85%50 527Tensile Strain, break, So mn/min2350%50 527Tensile Modulus, 1.3 mm/min, 50 mm span2360MPaASTM D790Flexural Stress, yield, 2 mm/min96MPa50 178Ball Indentison Hardness, H358/3096MPa50 178Ball Indentison Hardness, H358/3095MPa50 178Instrummin90MPa50 178Ball Indentison Hardness, H358/3095MPa50 178Instrumeted Dart Impact, totched, 23°C80 11/mASTM D256Instrumeted Dart Impact Total Energy, 23°C761ASTM D256Izod Impact, notched 80'10°3 +23°CN81/m50 180/14Izod Impact, unotched 80'10°3 +23°CN81/m150 180/14Izod Impact, unotched 80'10°3 spe2am141/m150 180/14Icol Instrumented Dart Inga Figuration136150 179/1eAIchary 23°C, Unotch Edgew 80'10°3 spe2am181/m150 179/1eAIchary 23°C, Unotch Edgew 80'10°3 spe2am181/m150 179/1eAIchary 23°C, Unotch Edgew 80'10°3 spe2am12°CASTM D648IChary 23°C, Unotch Edgew 80'10°3 spe2am1312%CASTM D648	Tensile Modulus, 50 mm/min	2410	MPa	ASTM D638
Tensile Strain, yield, 50 mn/min6%%%0527Tensile Modulus, 1 mm/min, 50 mm span950MPaK0527Hexaral Stress, yiel, 1 mm/min, 50 mm span960MPaASTM D790Hexaral Stress, yiel, 1 mm/min, 50 mm span960MPaK010790Hexaral Stress, yiel, 2 mm/min, 50 mm span90MPaK0178Betaural Stress, yiel, 2 mm/min90MPaK0178Ball Indenation Hardness, H358/3095MPaK02039-1Impact, notched, 23°C80MPaK0178Ball Indenation Hardness, H358/3095MPaK3TM D256Impact, notched, 23°C80M/maK0180/10Instrumented Dart Impact Total Energy, 23°C70M/maK0180/10Izod Impact, notched 80°10'3 -23°C12M/maK0180/10Izod Impact, notched 80°10'3 -23°CN8M/maK0180/10Izod Impact, notched 80°10'3 -23°CN8M/maK0180/10Izod Impact, notched 80°10'3 -23°CN8M/maK0180/10Izod Impact, unotched 80°10'3 -30°CN8M/maK0180/10Izod Impact, notched 80°10'3 -30°CN8M/maK0180/10Izod Impact, unotched 80°10'3 -952mmN8M/maK0179/1eACharpy -30°C, Vnotch Edgew 80°10'3 speEarmN8M/maK0179/1eACharpy -30°C, Unnotch Edgew 80°10'3 speEarmN8M/maK0179/1eACharpy -30°C, Unnotch Edgew 80°10'3 speEarmN8M/maK0179/1eACharpy -30°C, Unnotch Edgew 80°10'3 speEarmN8	Tensile Stress, yield, 50 mm/min	63	MPa	ISO 527
Tensile Strain, break. 50 mm/min85%80 527Tensile Modulus, 1 mm/min, 50 mm span96MPaS0 527Flexural Stress, yile, 1.3 mm/min, 50 mm span2860MPaASTM D790Flexural Stress, yile, 1.2 mm/min90MPaISO 178Flexural Stress, yiled, 2 mm/min90MPaISO 178Ball Indentation Hardness, H358/3095MPaISO 178Ball Indentation Hardness, H358/3095MPaISO 2039-1IMPACT ⁽¹⁾ VSTM D2763Instrumented Dart Impact, notched, 23°C801J/mSTM D3763Izod Impact, unotched 80'10'3 -23°CN8KJ/m2ISO 180/14Izod Impact, unotched 80'10'3 -42°CN8KJ/m2ISO 180/14Izod Impact, unotched 80'10'3 -42°CN8KJ/m2ISO 180/14Izod Impact, unotched 80'10'3 -92°CN8KJ/m2ISO 180/14Izod Impact, unotched 80'10'3 -92°CN8KJ/m2ISO 180/14Izod Impact, unotched 80'10'3 -92°CN8KJ/m2ISO 179/14AIzod Impact, unotched 80'10'3 -92°CN8KJ/m2ISO 179/14AIzod Impact, unotched 80'10'3 -92°CN8KJ/m2ISO 179/14AIzod Impact, unotched 80'10'3 -92°CmN8KJ/m2ISO 179/14AIzod Impact, unotche Kgew 80'10'3 -92°CmN8KJ/m2ISO 179/14AIzod Impact, unotche Kgew 80'10'3 -92°CmN8KJ/m2ISO 179/14ACharpy -30°C, Unotch Edgew 80'10'3 -92°CmN8KJ/m2ISO 179/14AIto Harpy - 30°C, Unotch Ed	Tensile Stress, break, 50 mm/min	60	MPa	ISO 527
Tesile Modulus, 1 mm/min2350MPaIso 527Hexural Stress, yid, 1.3 mm/min, 50 mm span96MPaASTM D790Hexural Modulus, 1.3 mm/min, 50 mm span2360MPaSD178Hexural Stress, yield, 2 mm/min90MPaIso 178Ball Indentitation Hardness, H358/3095MPaIso 20178Ball Indentitation Hardness, H358/3095MPaIso 20178Instrumented Dart Impact, notched, 23°C801J/mASTM D256Instrumented Dart Impact, Total Energy, 23°C76JASTM D3763Izod Impact, notched 80°10°3 -30°C12Ki/m²Iso 180/14Izod Impact, notched 80°10°3 -30°C76Iso 180/14Iso 180/14Izod Impact, notched 80°10°3 -30°CNBKi/m²Iso 180/14Izod Impact, notched 80°10°3 -30°CNBKi/m²Iso 180/14Izod Impact, notched 80°10°3 -30°CNBKi/m²Iso 180/14Izod Impact, notched 80°10°3 -962mmNBKi/m²Iso 180/14Izod Impact, notche Idgew 80°10°3 sp=62mmNBKi/m²Iso 179/1e4Chargy 23°C, Unnotch Edgew 80°10°3 sp=62mmNBKi/m²Iso 179/1e4Chargy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKi/m²Iso 179/1e4HDT, 4.5 RMPA, 3.2 mm, unannealed155°CASTM D648HDT, 1.82 MPA, 3.2 mm, unannealed153°CASTM D648HDT, 4.5 RMPA, 3.2 mm, unannealed123°CIso 1359-2HDT, 4.5 RMPA, 3.2 mm, unannealed123°CSo 306HDT, 4.5	Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Hexural Stress, yid, 1.3 mm/min, 50 mm span96MPaASTM D790Hexural Modulus, 1.3 mm/min, 50 mm span2360MPaASTM D790Flexural Modulus, 2 mm/min90MPa150 178Ball Indentation Hardness, M358/3090MPa150 178Ball Indentation Hardness, M358/3095MPa150 2039-1IMPACT ⁽¹⁾ XSTM D2561ASTM D256Instrumented Dart Impact, notched, 23°C801J/mASTM D3763Izod Impact, notched 80°10°3 -423°C76JASTM D3763Izod Impact, notched 80°10°3 -30°C12KJ/m²150 180/110Izod Impact, unnotched 80°10°3 -30°CNBKJ/m²150 180/110Izod Impact, unnotched 80°10°3 -30°CNBKJ/m²150 180/10Izod Impact, unnotched 80°10°3 -30°CNBKJ/m²150 180/10Charpy -30°C, V-notch Edgew 80°10°3 -sp=62mm73KJ/m²150 180/10Charpy -30°C, V-notch Edgew 80°10°3 -sp=62mmNBKJ/m²150 179/1eACharpy -30°C, Unnotch Edgew 80°10°3 -sp=62mmNBKJ/m²150 179/1eACharpy -30°C, Unnotch Edgew 80°10°3 -sp=62mmNBKJ/m²150 179/1eATHERMAL ¹¹ TT150150THERMAL ¹⁰ T123°CASTM D648CTE, 23°C to 80°C, flow7.60511°C150 -80HDT, 04.5 MPA, 5.2 mm, unannealed135°CASTM D648CTE, 23°C to 80°C, flow7.60511°C150 -80HDT, 04.5 MPA, 5.2 mm, unannealed141	Tensile Strain, break, 50 mm/min	85	%	ISO 527
Hexural Modulus, 1.3 mm/min, 50 mm span2360MPaASTM D790Flexural Modulus, 2 mm/min90MPaISO 178Flexural Modulus, 2 mm/min2300MPaISO 178Ball Indentation Hardness, H358/3095MPaISO 2039.1IMPACT ⁽¹⁾ </td <td>Tensile Modulus, 1 mm/min</td> <td>2350</td> <td>МРа</td> <td>ISO 527</td>	Tensile Modulus, 1 mm/min	2350	МРа	ISO 527
Hexural Stress, yield, 2 mm/min90MPaISO 178Hexural Modulus, 2 mm/min2300MPaISO 178Ball Indentation Hardness, H358/3095MPaISO 2039-1IMPACT ⁽¹⁾ MPaIzod Impact, notched, 23°C801//mASTM D256Instrumented Dart Impact Total Energy, 23°C76JASTM D3763Izod Impact, notched 80°10°3 +23°C12KI/m²ISO 180/14Izod Impact, notched 80°10°3 +23°C70KI/m²ISO 180/14Izod Impact, notched 80°10°3 -30°CNBKI/m²ISO 180/14Izod Impact, notched 80°10°3 -sp62mm14KI/m²ISO 179/1eACharpy 30°C, Vnotch Edgew 80°10°3 sp-62mmNBKI/m²ISO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 sp-62mmNBKI/m²ISO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 sp-62mmNBKI/m²ISO 179/1eATHEXIAL ⁽¹⁾ ISOSO 179/1eAISO 179/1eATHEXIAL ⁽¹⁾ ISOSO 180/14ISO 180/14HDT, 0.45 MPA, 3.2 mm, unannealed123°CASTM D648CTE, 23°C to 80°C, flow7.6.05II°CISO 1359-2Ball Presure Test, 125°C +1-2°CPASSEIIC 60695-102Vicat Softneing Temp, Ate B120141°CISO 306 <t< td=""><td>Flexural Stress, yld, 1.3 mm/min, 50 mm span</td><td>96</td><td>МРа</td><td>ASTM D790</td></t<>	Flexural Stress, yld, 1.3 mm/min, 50 mm span	96	МРа	ASTM D790
Hexural Modulus, 2 mm/min2000MPaIso 178Ball Indentation Hardness, H358/3095MPaIso 2039-1IMPACT ¹¹ Iso 2039-1Izod Impact, notched, 23°C801J/mASTM D256Instrumented Dart Impact Total Energy, 23°C76JASTM D3763Izod Impact, unotched 80°10°3 +23°C12Kl/m2Iso 180/14Izod Impact, notched 80°10°3 +23°C76Kl/m2Iso 180/14Izod Impact, notched 80°10°3 +23°C70Kl/m2Iso 180/1AIzod Impact, unotched 80°10°3 spe3cm73Kl/m2Iso 179/1AAIzod Impact, unotched 80°10°3 spe3cm73Kl/m2Iso 179/1AACharpy 23°C, Vnotch Edgew 80°10°3 spe3cmNBKl/m2Iso 179/1AACharpy 23°C, Unotch Edgew 80°10°3 spe3cmNBKl/m2Iso 179/	Flexural Modulus, 1.3 mm/min, 50 mm span	2360	МРа	ASTM D790
Ball Indentation Hardness, H358/3095MPaISO 2039-1IMPACT ⁽¹⁾ Impact Notched, 23°C801J/mASTM D256Isod Impact, notched, 23°C76JASTM D3763Izod Impact, unnotched 80°10°3 +23°CNBkl/m²ISO 180/10Izod Impact, notched 80°10°3 +23°C70kl/m²ISO 180/10Izod Impact, notched 80°10°3 -30°C70kl/m²ISO 180/10Izod Impact, unnotched 80°10°3 sp=62mm73Kl/m²ISO 180/10Charpy 23°C, Vnotch Edgew 80°10°3 sp=62mm73Kl/m²ISO 179/16ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/16ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mm73Kl/m²ISO 179/16ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/16ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/16ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/16ATHERMAL ⁽¹⁾ TTISO 179/16AISO 179/16ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/16ATHERMAL ⁽¹⁾ TISO 179/16AISO 179/16AISO 179/16ATHERMAL ⁽¹⁾ TISO 180/103ISO 180/103ISO 180/103THERMAL ⁽¹⁾ ISO 180/103ISO 180/103ISO 180/103ISO 180/103THERMAL ⁽¹⁾ ISO 180/103ISO 180/103ISO 180/103ISO 180/103IDT 1.6.2 MPA 3.2 mm unanceled152ISO 180/103ISO 180/103IDT 1.6.2 MP	Flexural Stress, yield, 2 mm/min	90	MPa	ISO 178
Impact Impact Izod Impact, notched, 23°C 801 I/m ASIM D256 Instrumented Dart Impact Total Energy, 23°C 76 J ASIM D3763 Izod Impact, unnotched 80°10°3 -30°C 12 Kl/m² ISO 180/14 Izod Impact, notched 80°10°3 -30°C 70 Kl/m² ISO 180/14 Izod Impact, unnotched 80°10°3 -30°C NB Kl/m² ISO 180/14 Izod Impact, unnotched 80°10°3 -30°C NB Kl/m² ISO 180/14 Izod Impact, unnotched 80°10°3 -962mm 73 Kl/m² ISO 179/1eA Charpy 23°C, Vnotch Edgew 80°10°3 sp=62mm NB Kl/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB Kl/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB Kl/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB Kl/m² ISO 179/1eA THERMAL ⁽¹⁾ SO 179/1eA ISO 179/1eA ISO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB Kl/m² ISO 179/1eA THERMAL ⁽¹⁾ SO	Flexural Modulus, 2 mm/min	2300	MPa	ISO 178
Izod Impact, notched, 23°C801J/mASTM D256Instrumented Dart Impact Total Energy, 23°C76JASTM D3763Izod Impact, unotched 80°10°3 +23°CNBKJ/m²S0 180/14Izod Impact, notched 80°10°3 +23°C70KJ/m²S0 180/14Izod Impact, notched 80°10°3 +23°CNBKJ/m²S0 180/14Izod Impact, notched 80°10°3 +30°CNBKJ/m²S0 180/14Izod Impact, notched 80°10°3 +39°CNBKJ/m²S0 180/14Icolary 23°C, V-notch Edgew 80°10°3 sp=62mm73KJ/m²S0 179/14ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKJ/m²S0 179/14ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKJ/m²S0 179/14UTHERKAL ⁽¹⁾ KJ/m²S0 179/14US0 179/14UHDT, 0.45 MPA, 3.2 mm, unannealed135°CASTM D648HDT, 1.82 MPA, 3.2 mm, unannealed123°CS0 11359-2Ball Pressure Test, 125°C +1-2°CPASES-IE C60695-10-2Vicat Softening Temp, Rate B/50141°CS0 306Vicat Softening Temp, Rate B/120142°CS0 306HDT/Ae, 1.8 MPA Edgew 120°10°4 sp=100mm154°CS0 306HDT/Ae, 1.8 MPA Edgew 120°10°4 sp=100mm124°CS0 75/Re	Ball Indentation Hardness, H358/30	95	MPa	ISO 2039-1
Instrumented Dart Impact Total Energy, 23°C76JASTM D3763Izod Impact, unnotched 80°10°3 +23°CNBKJ/m²ISO 180/14Izod Impact, notched 80°10°3 -30°C70KJ/m²ISO 180/1AIzod Impact, notched 80°10°3 -30°CNBKJ/m²ISO 180/1AIzod Impact, unnotched 80°10°3 -30°CNBKJ/m²ISO 180/1AIzod Impact, unnotched 80°10°3 -30°CNBKJ/m²ISO 180/1ACharpy 23°C, V-notch Edgew 80°10°3 sp=62mm73KJ/m²ISO 179/1eACharpy -30°C, Unnotch Edgew 80°10°3 sp=62mmNBKJ/m²ISO 179/1eACharpy -30°C, Unnotch Edgew 80°10°3 sp=62mmNBKJ/m²ISO 179/1eUTHERKAL ⁽¹⁾ TSO 179/1eUISO 179/1eUTHERKAL ⁽¹⁾ SO 179/1eUISO 179/1eUISO 179/1eUTHERKAL ⁽¹⁾ TSO 1359-2ISO 1359-2Ball Pressure Test, 125°C +/- 2°CPASESISO 1359-2Ball Pressure Test, 125°C +/- 2°CPASESISO 306Vicat Softening Temp, Rate B/120142°CISO 306HDT/Ae, 1.8 MPa Edgew 120°10°4 sp=100mm135°CISO 306HDT/Ae, 1.8 MPa Edgew 120°10°4 sp=100mm124°CISO 75/Be	IMPACT ⁽¹⁾			
Izod Impact, unnotched 80°10°3 +23°C NB kl/m² SO 180/10 Izod Impact, notched 80°10°3 +23°C 12 kl/m² SO 180/1A Izod Impact, notched 80°10°3 +23°C 70 kl/m² SO 180/1A Izod Impact, notched 80°10°3 +23°C NB kl/m² SO 180/1A Izod Impact, unnotched 80°10°3 +23°C NB kl/m² SO 180/1A Izod Impact, unnotched 80°10°3 sp=62mm NB kl/m² SO 179/1eA Charpy 30°C, V-notch Edgew 80°10°3 sp=62mm NB kl/m² SO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB kl/m² SO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB kl/m² SO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB kl/m² SO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB kl/m² SO 179/1eA THERMAL ⁽¹⁾ SO 179/1eA SO 179/1eA THERMAL ⁽¹⁾ SO 100 SO 100 TEG 60°C, flow NE SO 100 SO 100 Ball Pressure Test, 125°C +/-2°C PASES	Izod Impact, notched, 23°C	801	J/m	ASTM D256
Izod Impact, notched 80*10*3-30°C 12 k/m² ISO 180/1A Izod Impact, notched 80*10*3-30°C 70 k/m² ISO 180/1A Izod Impact, unnotched 80*10*3-30°C NB k/m² ISO 180/1U Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 73 k/m² ISO 179/1eA Charpy 30°C, V-notch Edgew 80*10*3 sp=62mm 14 k/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80*10*3 sp=62mm NB k/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80*10*3 sp=62mm NB k/m² ISO 179/1eA THERMAL ¹¹ k/m² ISO 179/1eA ISO 179/1eA THERMAL ¹¹ K/m² ISO 179/1eA THERMAL ¹¹ ISO 179/1eA ISO 179/1eA THERMAL ¹¹ ISO 179/1eA ISO 179/1eA TERMAL ¹¹ ISO 179/1eA ISO 179/1eA TERMAL ¹¹ ISO 179/1eA ISO 179/1eA ISO 179/1eA TERMAL ¹¹ ISO 179/1eA ISO 179/1eA ISO 179/1eA TERMAL ¹¹ ISO 180 ISO 179/1eA ISO 11359/2 ISO 11	Instrumented Dart Impact Total Energy, 23°C	76	J	ASTM D3763
Izod Impact, notched 80°10°3 +23°C 70 kl/m2 ISO 180/14 Izod Impact, unnotched 80°10°3 -30°C NB kl/m2 ISO 180/10 Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 73 kl/m2 ISO 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 14 kl/m2 ISO 179/1eA Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB kl/m2 ISO 179/1eA Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB kl/m2 ISO 179/1eU THERMAL ⁽¹⁾ ISO 179/1eU ISO 179/1eU ISO 179/1eU HDT, 0.45 MPa, 3.2 mm, unannealed 135 °C A ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 123 °C A ASTM D648 HDT ferssure Test, 125°C t/. 2°C PASES 1/°C ISO 1359-2 Ball Pressure Test, 125°C t/. 2°C 141 °C A ISO 306 Vicat Softening Temp, Rate B/120 142 °C A ISO 306 Vicat Softening Temp, Rate B/120 124 °C A ISO 306 HDT/Ae, 1.8 MPa Edgew 120°10°4 sp=100mm 124 °C A ISO 75/Ae	Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C NB kJ /m² ISO 180/1U Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 73 kJ /m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 14 kJ /m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ /m² ISO 179/1eA Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ /m² ISO 179/1eU THERMAL ⁽¹⁾ kJ /m² ISO 179/1eU ISO 179/1eU THERMAL ⁽¹⁾ 150 T9/1eU ISO 179/1eU THERMAL ⁽¹⁾ Victo SMPa, 3.2 mm, unannealed 135 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 123 °C SO 11359-2 Ball Pressure Test, 125°C +/- 2°C PASES IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 124 °C ISO 75/Be	Izod Impact, notched 80*10*3 -30°C	12	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 73 kl /m² Iso 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 14 kl /m² Iso 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB kl /m² Iso 179/1eU Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB kl /m² Iso 179/1eU Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB kl /m² Iso 179/1eU THERMAL ⁽¹⁾ NB kl /m² Iso 179/1eU HDT, 0.45 MPa, 3.2 mm, unannealed 135 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 123 °C ASTM D648 Glall Pressure Test, 125°C +/- 2°C PASSES Ic 60695-10-2 IsO 306 Klicat Softening Temp, Rate B/50 141 °C IsO 306 IsO 306 Vicat Softening Temp, Rate B/120 142 °C IsO 306 IsO 75/Be HDT/Be, 0.45MPa Edgew 120°10°4 sp=100mm 124 °C IsO 75/Be IsO 75/Be	Izod Impact, notched 80*10*3 +23°C	70	kJ/m²	ISO 180/1A
Charpy -30°C, V-notch Edgew 80*10'3 sp=62mm14kJ/m2ISO 179/1eACharpy 23°C, Unnotch Edgew 80*10'3 sp=62mmNBkJ/m2ISO 179/1eUCharpy -30°C, Unnotch Edgew 80*10'3 sp=62mmNBkJ/m2ISO 179/1eUTHERMAL ⁽¹⁾ THERMAL ⁽¹⁾ Stor 179/1eUStor 179/1eUHDT, 0.45 MPa, 3.2 mm, unannealed135°CASTM D648Edd Cf, 23°C to 80°C, flow7.Eo51/°CISO 17359-2Ball Pressure Test, 125°C +/- 2°CPASSES-IEC 60695-10-2Vicat Softening Temp, Rate B/120141°CISO 306HDT/Be, 0.45MPa Edgew 120'10'4 sp=100mm124°CISO 306HDT/Ae, 1.8 MPa Edgew 120'10'4 sp=100mm124°CISO 75/Ae	Izod Impact, unnotched 80*10*3 -30°C	NB	kJ/m²	ISO 180/1U
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ/m2 ISO 179/1eU Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ/m2 ISO 179/1eU THERMAL ⁽¹⁾ ISO 179/1eU ISO 179/1eU ISO 179/1eU HDT, 0.45 MPa, 3.2 mm, unannealed 135 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 123 °C ASTM D648 CTE, 23°C to 80°C, flow 7.E·05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 135 °C ISO 306 HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 124 °C ISO 75/Ae	Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	73	kJ/m²	ISO 179/1eA
Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ m² ISO 179/1eU THERMAL ⁽¹⁾ THERMAL THERMAL THERMAL THERMAL ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 135 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 123 °C ASTM D648 CTE, 23°C to 80°C, flow 7.E·05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120°10°4 sp=100mm 124 °C ISO 75/Be	Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	14	kJ/m²	ISO 179/1eA
THERMAL ⁽¹⁾ Science HDT, 0.45 MPa, 3.2 mm, unannealed 135 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 123 °C ASTM D648 GTE, 23°C to 80°C, flow 7.6.05 1/°C S0 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C S0 306 Vicat Softening Temp, Rate B/120 142 °C IS0 306 HDT/Be, 0.45MPa Edgew 120°10°4 sp=100mm 124 °C IS0 75/Be	Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
HDT, 0.45 MPa, 3.2 mm, unannealed 135 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 123 °C ASTM D648 CTE, 23°C to 80°C, flow 7.6-05 1/°C IS0 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C IS0 306 Vicat Softening Temp, Rate B/120 142 °C IS0 306 HDT/Be, 0.45MPa Edgew 120°10°4 sp=100mm 135 °C IS0 75/Be	Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
HDT, 1.82 MPa, 3.2mm, unannealed 123 °C ASTM D648 CTE, 23°C to 80°C, flow 7.6.05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120°10°4 sp=100mm 135 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120°10°4 sp=100mm 124 °C ISO 75/Ae	THERMAL ⁽¹⁾			
CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120°10°4 sp=100mm 135 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120°10°4 sp=100mm 124 °C ISO 75/Ae	HDT, 0.45 MPa, 3.2 mm, unannealed	135	°C	ASTM D648
Ball Pressure Test, 125°C +/- 2°C PASSES IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 135 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 124 °C ISO 75/Ae	HDT, 1.82 MPa, 3.2mm, unannealed	123	°C	ASTM D648
Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 135 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 124 °C ISO 75/Ae	CTE, 23°C to 80°C, flow	7.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 135 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 124 °C ISO 75/Ae	Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
HDT/Be, 0.45 MPa Edgew 120*10*4 sp=100mm 135 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 124 °C ISO 75/Ae	Vicat Softening Temp, Rate B/50	141	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 124 °C ISO 75/Ae	Vicat Softening Temp, Rate B/120	142	°C	ISO 306
	HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	135	°C	ISO 75/Be
Relative Temp Index, Elec ⁽²⁾ 80 °C UL 746B	HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	124	°C	ISO 75/Ae
	Relative Temp Index, Elec ⁽²⁾	80	°C	UL 746B

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CHEMISTRY THAT MATTERS



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	1.19	-	ASTM D792
Density	1.2	g/cm ³	ISO 1183
Melt Flow Rate, 300°C/1.2 kgf	14.8	g/10 min	ASTM D1238
Melt Volume Rate, MVR at 300°C/1.2 kg	12	cm³/10 min	ISO 1133
Mold Shrinkage on Tensile Bar, flow (3)	0.5 – 0.7	%	SABIC method
Water Absorption, (23°C/saturated)	0.35	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link 2	E207780-100220071	-	
UL Yellow Card Link	<u>E45329-557017</u>	-	
UL Recognized, 94V-0 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	2 - 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 300	°C	
Nozzle Temperature	270 – 290	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	80 - 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. 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.

(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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