

LEXAN™ COPOLYMER HFD1711

REGION AMERICAS

DESCRIPTION

25 MFR LEXAN High Flow Ductile Copolymer

TYPICAL PROPERTY VALUES

Revision 20240624

MECHANICAL ¹⁹ ViewTendis Stress, Vid. Type I, S0 mm / min59MMAITM De BasTensile Stress, Nid. Type I, S0 mm / min60%AITM De BasTensile Stress, Nid. Type I, S0 mm / min132%AITM De BasTensile Stress, Nid. Type I, S0 mm / min132%AITM De BasTensile Modulus, S1 mm / min, S0 mm span99MMAITM De BasFlexaril Stress, yiel, 1.3 mm / min, S0 mm span2200MMAITM De BasTensile Stress, yiel, 1.5 mm / min, S0 mm span62MMSO 527Tensile Stress, break, S0 mm / min6%SO 527Tensile Stress, break, S0 mm / min62MMSO 527Tensile Stress, break, S0 mm / min120%SO 527Tensile Stress, break, S0 mm / min120%SO 527Tensile Stress, break, S0 mm / min120%SO 527Tensile Stress, bid, 2 mm / min9MPaSO 527Tensile Stress, bid, 2 mm / min120%SO 527Tensile Stress, bid, 2 mm / min120% <t< th=""><th>PROPERTIES</th><th>TYPICAL VALUES</th><th>UNITS</th><th>TEST METHODS</th></t<>	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tensile Stras, brk, Type I, 50 mm/min60MaATM D638Tensile Strain, brk, Type I, 50 mm/min132%ATM D638Tensile Strain, brk, Type I, 50 mm/min2230MraASTM D638Flexural Stras, brk, Type I, 50 mm/min2230MraASTM D790Flexural Modulus, 1.3 mm/min, 50 mm span2200MraASTM D790Flexural Modulus, 1.3 mm/min, 50 mm span2200MraASTM D790Tensile Stras, break, 50 mm/min62MraSD 527Tensile Stras, break, 50 mm/min62MraSD 527Tensile Stras, break, 50 mm/min123%SD 527Tensile Stras, break, 50 mm/min123%SD 527Tensile Stras, break, 50 mm/min124%SD 527Tensile Stras, break, 50 mm/min120%SD 527Tensile Stras, break, 50 mm/min120MraSD 527Tensile Stras, break, 50 mm/min120%SD 527Tensile Stras, break, 50 mm/min120%SD 527Tensile Stras, break, 50 mm/min120MraSD 527Tensile Stras, break, 50 mm/min120%SD 527Tensile Stras, break, 50 mm/min120%<	MECHANICAL ⁽¹⁾			
Tensile Strain, bit, Type I, 50 mr /min6%ASTM D638Tensile Strain, bit, Type I, 50 mr /min122%ASTM D638Tensile Strain, bit, Type I, 50 mr /min2230MPaASTM D638Pesural Stees, viel, 1.3 mr /min, 50 mr span9MPaASTM D790Hardness, Rockwell R120-ASTM D790Tensile Stees, vield, 50 mm /min6SSD 527Tensile Stees, break, 50 mm /min6%SD 527Tensile Stees, break, 50 mm /min6%SD 527Tensile Stees, break, 50 mm /min123%SD 527Tensile Modulus, 2 mm /min9MPaSD 178Tensile Modulus, 2 mm /min128MPaSD 178Tensile Modulus, 2 mm /min9MPaSD 178Tensile Modulus, 2 mm /min10MPaSD 178Tensile Modulus, 2 mm /min128MPaSD 178Tensile Modulus, 2 mm /min128MPaSD 178Tensile Modulus, 2 mm /min128MPaSD 180Log Impact, notched, 02°C128J/mSD 180Log Impact, notched, 02°CNBJ/mSD 180Log Impact, notched, 01°G 3 + 23°CNBJ/mSD 180Lod Impact, notched S01°G 3 + 23°C	Tensile Stress, yld, Type I, 50 mm/min	59	MPa	ASTM D638
Tesile Strain, Jrki, Type I, 5 0 m/min132%ATM D638Tesile Modulus, 5 mm/min2230MPaASTM D638Flexural Modulus, 5 mm/min, 50 mm span99MPaASTM D730Plexural Modulus, 1 mm/min, 50 mm span2200MPaASTM D730Harchess, Rockwell R100-ASTM D735Tensile Stress, yield, 50 mm/min62MPaSD 527Tensile Stress, break, 50 mm/min63MPaSD 527Tensile Stress, break, 50 mm/min133%SD 527Tensile Strain, break, 50 mm/min134%SD 527Tensile Strain, break, 50 mm/min134%SD 527Tensile Strain, break, 50 mm/min132%SD 527Tensile Modulus, 1 mm/min132%SD 527Tensile Modulus, 2 mm/min0MPaSD 178Tensile Modulus, 2 mm/min90MPaSD 178Tensile Modulus, 2 mm/min91MPaSD 178Tensile Modulus, 2 mm/min10MPaSD 180Tensile Modulus, 2 mm/min10JSD 600Tensile Modulus, 2 mm/min10SD 180MIn0256Tensile Modulus, 2 mm/minNBMIn7SD 180Tensile Modulus, 2 mm/min10SD 180MIn0256Tensile Modulus, 2 mm/min10SD 180MIn0266Tensile Modulus, 2 mm/minMRASD 180MIn0266Tensile Modulus, 2 mm/min10MIn04SD 180Tensile Modulus, 2 mm/minSD 180MIn04S	Tensile Stress, brk, Type I, 50 mm/min	60	MPa	ASTM D638
Tensile Modulus, 5 mm/min 2230 MPa ASTM D638 Flexural Stress, yid, 1.3 mm/min, 50 mm span 99 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2220 MPa ASTM D790 Hardness, Rockwell K 100 - ASTM D785 Tensile Stress, break, 50 mm/min 62 MPa 80527 Tensile Stress, break, 50 mm/min 63 MPa 80527 Tensile Strain, yield, 50 mm/min 123 % 80527 Tensile Strain, break, 50 mm/min 123 % 80527 Tensile Strain, break, 50 mm/min 2180 MPa 805178 Tensile Strain, break, 50 mm/min 90 MPa 805178 MACT ¹⁰ 120 MPa 80178 MMACT ¹⁰ 10 MPa 80178 Izod Impact, notched, 29°C 789 J/m MS1M D256 Izod Impact, notched 80°10°3 + 23°C 7 S0180/10 S0180/10 Izod Impact, notched 80°10°3 + 23°C 84 M/ma S0180/10 Izod Impact, notched 80°10°3 + 23°C<	Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D638
Flexural Stress, yid, 1.3 mm/min, 50 mm span99MPaASTM D790Hardness, Rockwell R120MPaASTM D790Hardness, Rockwell R120MPaASTM D785Tensile Stress, yidd, 50 mm/min65MPaISO 527Tensile Stress, brenk, 50 mm/min6%ISO 527Tensile Strain, break, 50 mm/min123%ISO 527Tensile Strain, break, 50 mm/min123%ISO 527Tensile Modulus, 1 mm/min2180MPaISO 787Flexural Modulus, 2 mm/min0MPaISO 787Flexural Modulus, 2 mm/min2180MPaISO 787Flexural Modulus, 2 mm/min0MPaISO 787Flexural Modulus, 2 mm/min9MPaISO 787Flexural Modulus, 2 mm/min0MPaISO 787Flexural Modulus, 2 mm/min9MPaISO 787Flexural Modulus, 2 mm/min9MPaISO 787Flexural Modulus, 2 mm/min9MPaISO 787Flexural Modulus, 2 mm/min10MPaISO 787Lood Impact, notched, 9°C8ISO 801ISO 801Lood Impact, notched, 9°C10ISO 800ISO 801Lood Impact, notched, 9°CNBISO 801ISO 801Lood Impact, notched 80°10°3 42°CISO 801ISO 801ISO 801Lood Impact, notched 80°10°3 42°CISO 801ISO 801ISO 801Lood Impact, notched 80°10°3 42°CISO 801ISO 801ISO 801Lood Impact, notched 80°10°3 42°C <td>Tensile Strain, brk, Type I, 50 mm/min</td> <td>132</td> <td>%</td> <td>ASTM D638</td>	Tensile Strain, brk, Type I, 50 mm/min	132	%	ASTM D638
Hexural Modulus, 1.3 mm/min, 50 mm yan 2220 MPa ASTM D790 Hardness, Rockwell R 120 - ASTM D785 Tensile Stress, yield, 50 mm/min 62 MPa S0 527 Tensile Stress, break, 50 mm/min 62 MPa S0 527 Tensile Stress, break, 50 mm/min 6 % S0 527 Tensile Stress, yield, 2 mm/min 123 % S0 527 Tensile Strain, break, 50 mm/min 2180 MPa S0 527 Tensile Stress, yield, 2 mm/min 90 MPa S0 527 Tensile Stress, yield, 2 mm/min 90 MPa S0 527 Tensile Stress, yield, 2 mm/min 90 MPa S0 527 Tensile Stress, yield, 2 mm/min 90 MPa S0 527 Tensile Stress, yield, 2 mm/min 90 MPa S0 527 Tensile Stress, yield, 2 mm/min 90 MPa S0 527 Tensile Stress, yield, 2 mm/min 90 MPa S0 160/10 Teod Impact, notched, 30°C 812 J/m STM D256 Izod Impact, notched,	Tensile Modulus, 5 mm/min	2230	MPa	ASTM D638
Hardness, Rockwell R120ASTM D785Tensile Stress, yield, 50 mm/min62MPaS0 527Tensile Strain, yield, 50 mm/min65MPaS0 527Tensile Strain, yield, 50 mm/min123%S0 527Tensile Strain, preak, 50 mm/min123%S0 527Tensile Strain, preak, 50 mm/min2180MPaS0 527Flexural Stress, yield, 2 mm/min90MPaS0 527Flexural Stress, yield, 2 mm/min90MPaS0 527Instant Modulus, 2 mm/min90MPaS0 178Harpert "S0 178S0 178Izda Impact, notched, 32°C81S1 78S0 178Izda Impact, notched, 30°C789J/mASTM 0256Izda Impact, notched, 30°C10JS0 6603Instrumented Dart Impact Total Energy, 23°CN8KJ/m2S0 180/10Izda Impact, unotched 80°10°3 -30°CN8KJ/m2S0 180/10Izda Impact, unotched 80°10°3 -30°C13KJ/m2S0 179/1eAIzda Impact, unotched 80°10°3 -30°CN8KJ/m2S0 179/1eAIzda Impact, unotched 80°10°3 -30°C13KJ/m2S0 179/1eAIzda Impact, unotched 80°10°3 -30°C13KJ/m2S0 179/1eAIzda Impact, unotched 80°10°3 -30°C13KJ/m2S0	Flexural Stress, yld, 1.3 mm/min, 50 mm span	99	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min52MPa50 527Tensile Strain, yield, 50 mm/min6%50 527Tensile Strain, break, 50 mm/min123%50 527Tensile Strain, break, 50 mm/min123%50 527Tensile Modulus, 1 mm/min180MPa50 178Flexural Kress, yield, 2 mm/min100MPa50 178Tensile Modulus, 2 mm/min180MPa50 178Tensile Modulus, 2 mm/min181J/mMTD 256Tensile Modulus, 2 mm/min181J/mMTD 256Tensile Modulus, 2 mm/min191MTD 25650 603Tensile Modulus, 1 mm, 2 Min191S0 180 104Tensile Modulus, 1 mm, 2 Min191S0 180 104 <t< td=""><td>Flexural Modulus, 1.3 mm/min, 50 mm span</td><td>2220</td><td>MPa</td><td>ASTM D790</td></t<>	Flexural Modulus, 1.3 mm/min, 50 mm span	2220	MPa	ASTM D790
Tensile Streak, 50 mm/min65MPaISD 527Tensile Strain, yield, 50 mm/min63%ISD 527Tensile Strain, break, 50 mm/min123%ISD 527Tensile Modulus, 1 mm/min2180MPaISD 727Flexural Modulus, 2 mm/min2180MPaISD 178Flexural Modulus, 2 mm/min2180MPaISD 178Tensile Stress, yield, 2 mm/min2180MPaISD 178Itexural Stress, yield, 2 mm/min2180MPaISD 178Itexural Modulus, 2 mm/min2180MPaISD 178Itexural Modulus, 2 mm/min2180MPaISD 178Itexural Modulus, 2 mm/min2180MPaISD 178Itexural Modulus, 2 mm/min2180MPaISD 180Itexural Modulus, 2 mm/min10ST 180ISD 180Itexural Modulus, 2 mm/min10JimASTM 256Itexural Modulus, 2 mm/min10ISD 180ISD 180Itexural Modulus, 2 mm/min10JimISD 180Itexural Modulus, 2 mm/min10ISD 180ISD 180Itexural Modulus, 2 mm/min10ISD 180Itexural Modulus, 2 mm/min13Mim ² ISD 180/14Itexural Modulus, 2 mm/min13Mim ² ISD 180/14Itexural MinIsD 180/13 spe62mm13Mim ² ISD 179/14JCharpy 30°C, Unotch Edgew 80°10'3 spe62mmN8Mim ² ISD 179/14JCharpy 30°C, Unotch Edgew 80°10'3 spe62mmN8Mim ² ISD 179/14JTHERUL ¹	Hardness, Rockwell R	120	-	ASTM D785
Tensile Strain, yield, 50 mm/min6%100 527Tensile Strain, break, 50 mm/min123%150 527Tensile Modulus, 1 mm/min2180MPa150 527Flexural Stress, yield, 2 mm/min90MPa150 178Flexural Modulus, 2 mm/min2180MPa150 178Impact, notched, 23°C2180MPa50 178Lood Impact, notched, 23°C789J/mASTM D256Izod Impact, notched, 30°C789J/mASTM D256Iutiaxial Impact110J150 6603Instrumented Dart Impact, Total Energy, 23°C67JASTM D3763Izod Impact, notched 80°10°3 +23°CNBK/m²150 180/14Izod Impact, notched 80°10°3 +23°C13K/m²150 179/1eACharpy 23°C, V-notch Edgew 80°10°3 sp=62mm13K/m²150 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mm13K/m²150 179/1eA <td>Tensile Stress, yield, 50 mm/min</td> <td>62</td> <td>MPa</td> <td>ISO 527</td>	Tensile Stress, yield, 50 mm/min	62	MPa	ISO 527
Tensile Strain, break, 50 mm/min123%150 527Tensile Modulus, 1 mm/min2180MPa150 527Flexural Stress, yield, 2 mm/min90MPa150 178Flexural Modulus, 2 mm/min2180MPa150 178IMPACT ⁽¹⁾ </td <td>Tensile Stress, break, 50 mm/min</td> <td>65</td> <td>MPa</td> <td>ISO 527</td>	Tensile Stress, break, 50 mm/min	65	MPa	ISO 527
Tensile Modulus, 1 mm/min2180MPaISO 527Hexural Stress, yield, 2 mm/min90MPaISO 178Hexural Modulus, 2 mm/min2180MPaISO 178IMPACT ⁽¹⁾ ISO 178Izod Impact, notched, 23°C812J/mASTM 0256Izod Impact, notched, 0°C789J/mASTM 0256Izod Impact, notched, 30°C125J/mASTM 0256Multiaxial Impact Total Energy, 23°C67JSO 180/10Isor Impact, unotched 80°10°3 +23°CNBKl/m²ISO 180/10Izod Impact, unotched 80°10°3 +23°C64Kl/m²ISO 180/10Izod Impact, unotched 80°10°3 sp=62mm73Kl/m²ISO 180/1AIcon Japact, unotche Edgew 80°10°3 sp=62mm13Kl/m²ISO 180/1ACharpy 23°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/1eACharpy 30°C, Vnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/1eUTHERML ⁽¹⁾ VVVVISO 179/1eUCharpy 30°C, Unnotch Edgew 80°10°3 sp=62mm155°CASTM D1525HDT, 0.45 MFR, 3.2 mm, unannealed122°CASTM D1525HDT, 0.45 MFR, 3.2 mm, unannealed122°CASTM D648HDT, 1.82 MFR, 3.2 mm, unannealed111°CASTM D648HDT, 0.40 C, flow122SO 180/14SO 180/14HD	Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Hexural Stress, yield, 2 m/min90MPaISO 178Hexural Modulus, 2 mm/min2180MPaISO 178IMPACT ⁽¹⁾ JimASTM 0256Izod Impact, notched, 23°C812J/mASTM 0256Izod Impact, notched, 0°C789J/mASTM 0256Izod Impact, notched, 30°C10JS0 6603Muttaxial Impact10JS0 6603Instrumented Dart Impact Total Energy, 23°C67JASTM 03763Izod Impact, unotched 80°10°3 +23°CNBKi/m²ISO 180/10Izod Impact, unotched 80°10°3 +23°CNBKi/m²ISO 180/10Izod Impact, notched 80°10°3 +23°CNBKi/m²ISO 180/10Izod Impact, notched 80°10°3 spe62mm33Ki/m²ISO 180/14Izod Impact, notched 80°10°3 spe62mmNBKi/m²ISO 179/1eACharpy 33°C, Unotch Edgew 80°10°3 spe62mmNBKi/m²ISO 179/1eACharpy 33°C, Unotch Edgew 80°10°3 spe62mmNBKi/m²ISO 179/1eACharpy 33°C, Unotch Edgew 80°10°3 spe62mmNBKi/m²ISO 179/1eATHERMAL ⁽¹⁾ TTTTTVicat Softening Temp, Rate B/50135°CASTM D1525HDT, 0.45 MPa, 3.2 mm, unannealed122°CASTM D648HDT, 1.82 MPa, 3.2 mm, unannealed110°CASTM D648HDT, 4.64 °C ta0°C, flow8.051/°CASTM D648	Tensile Strain, break, 50 mm/min	123	%	ISO 527
Hexural Modulus, 2 mm,2180MPaISO 178IMPACT ⁽¹⁾ Izod Impact, notched, 23°C812J/mASTM D256Izod Impact, notched, 0°C789J/mASTM D256Izod Impact, notched, 30°C125J/mASTM D256Mutiaxial Impact110JISO 6603Instrumented Dart Impact Total Energy, 23°C67JASTM D3763Izod Impact, unnotched 80°10°3 +23°CNBKJ/m²ISO 180/10Izod Impact, notched 80°10°3 +23°C64KJ/m²ISO 180/10Izod Impact, notched 80°10°3 -ac°C13KJ/m²ISO 180/14Izod Impact, notched 80°10°3 -ac°C13KJ/m²ISO 180/14Izod Impact, notched 80°10°3 -ac°C13KJ/m²ISO 179/14ACharpy 23°C, Vnotch Edgew 80°10°3 sp=62mmNBKJ/m²ISO 179/14ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKJ/m²ISO 179/14ACharpy 33°C, Unnotch Edgew 80°10°3 sp=62mmNBKJ/m²ISO 179/14ACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmN	Tensile Modulus, 1 mm/min	2180	MPa	ISO 527
IMPACT ¹¹ I/m ASTM D256 Izod Impact, notched, 23°C 789 J/m ASTM D256 Izod Impact, notched, 30°C 125 J/m ASTM D256 Multiaxial Impact 10 J S0 6603 Instrumented Dart Impact Total Energy, 23°C 67 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB KJ/m² IS0 180/10 Izod Impact, notched 80°10°3 +23°C NB KJ/m² IS0 180/10 Izod Impact, notched 80°10°3 +23°C NB KJ/m² IS0 180/10 Izod Impact, notched 80°10°3 +23°C NB KJ/m² IS0 180/10 Izod Impact, notched 80°10°3 +23°C 64 KJ/m² IS0 180/10 Izod Impact, notched 80°10°3 +23°C 13 KJ/m² IS0 180/14 Izod Impact, notche 80°10°3 spe62mm 73 KJ/m² IS0 179/14A Charpy 23°C, V-notch Edgew 80°10°3 spe62mm NB KJ/m² IS0 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 spe62mm NB KJ/m² IS0 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 spe62mm NB KJ/m²	Flexural Stress, yield, 2 mm/min	90	MPa	ISO 178
Izod impact, notched, 23°C812J/mASTM D256Izod impact, notched, 0°C789J/mASTM D256Izod impact, notched, 30°C125J/mASTM D256Multiaxial impact100JS0 6603Instrumented Dart impact Total Energy, 23°C67JASTM D3763Izod impact, nontched 80°10°3 +23°CNBKi/m²IS0 180/10Izod impact, notched 80°10°3 +23°C64Ki/m²IS0 180/10Izod impact, notched 80°10°3 +23°C64Ki/m²IS0 180/14Izod impact, notched 80°10°3 spe62mm13Ki/m²IS0 180/14Charpy 23°C, V-notch Edgew 80°10°3 spe62mm13Ki/m²IS0 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mmNBKi/m²IS0 179/1eACharpy 30°C, Unnotch Edgew 80°10°ASTIS0	Flexural Modulus, 2 mm/min	2180	MPa	ISO 178
Izod impact, notched, 23°CS12J/mASTM D256Izod impact, notched, 0°C789J/mASTM D256Izod impact, notched, 30°C125J/mASTM D256Multiaxial impact100JS0 6603Instrumented Dart impact Total Energy, 23°C67J/mS0 180/10Izod impact, nontched 80°10°3 +23°CNBKi/m²S0 180/10Izod impact, notched 80°10°3 +23°C64Ki/m²S0 180/10Izod impact, notched 80°10°3 +23°C64Ki/m²S0 180/14Izod impact, notched 80°10°3 spe62mm73Ki/m²S0 180/14Charpy 23°C, V-notch Edgew 80°10°3 spe62mm13Ki/m²S0 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mmNBKi/m²S0 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mmS1S0 S0 S0<	IMPACT ⁽¹⁾			
Izod Impact, notched, -30°C 125 J/m ASTM D256 Multiaxial Impact 100 J ISO 6603 Instrumented Dart Impact Total Energy, 23°C 67 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 Izod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C 64 kJ/m² ISO 180/14 Izod Impact, notched 80°10°3 -30°C 13 kJ/m² ISO 180/14 Izod Impact, notched 80°10°3 -962mm 73 KJ/m² ISO 179/14A Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/14A Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/14D Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB KJ/m² SO 179/14D DT		812	J/m	ASTM D256
Multiaxial Impact 100 J Is0 6603 Instrumented Dart Impact Total Energy, 23°C 67 ASTM D3763 Izod Impact, unnotched 80°10°3 + 23°C NB k/m² Is0 180/10 Izod Impact, unnotched 80°10°3 + 23°C NB k/m² Is0 180/10 Izod Impact, unnotched 80°10°3 + 23°C NB k/m² Is0 180/10 Izod Impact, notched 80°10°3 + 23°C 64 k/m² Is0 180/1A Izod Impact, notched 80°10°3 - 30°C 13 k/m² Is0 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 73 k/m² Is0 179/1eA Charpy 30°C, V-notch Edgew 80°10°3 sp=62mm NB k/m² Is0 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB k/m² Is0 179/1eA Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB k/m² Is0 179/1eA THERML ⁽¹⁾ S0 179/1eA Is0 179/1eA Vicat Softening Temp, Rate B/50 135 S0 179/1eA S0 179/1eA HDT, 0.45 MPa, 3.2 mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 1	Izod Impact, notched, 0°C	789	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C 67 J ASTM D3763 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 Izod Impact, notched 80*10*3 -30°C 64 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 -30°C 13 kJ/m² ISO 180/1A 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 NB kJ/m² ISO 179/1eA Charpy -30°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 179/1eA Charpy -30°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 179/1eA Charpy -30°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 179/1eA FHERMAL ⁽¹⁾ ISO KI KI/m²	Izod Impact, notched, -30°C	125	J/m	ASTM D256
Izod Impact, unnotched 80*10*3 +23°C NB kl/m2 ISO 180/1U Izod Impact, unnotched 80*10*3 +23°C NB kl/m2 ISO 180/1U Izod Impact, notched 80*10*3 +23°C 64 kl/m2 ISO 180/1A Izod Impact, notched 80*10*3 +23°C 64 kl/m2 ISO 180/1A Izod Impact, notched 80*10*3 +23°C 13 kl/m2 ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 73 Kl/m2 ISO 179/1eA Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm 13 kl/m2 ISO 179/1eA Charpy 23°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⁾ Vicat Softening Temp, Rate B/50 NB Kl/m2 ISO 179/1eU Vicat Softening Temp, Rate B/50 135 °C ASTM D548 HDT, 1.82 MPa, 3.2mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 111 °C ASTM D648	Multiaxial Impact	110	J	ISO 6603
Izod Impact, unnotched 80*10*3 -30°C NB kJ /m² ISO 180/1U Izod Impact, notched 80*10*3 -23°C 64 kJ /m² ISO 180/1A Izod Impact, notched 80*10*3 -30°C 13 kJ /m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 73 kJ /m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 13 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⁾ Vicat Softening Temp, Rate B/50 NB kJ /m² SO 179/1eU Vicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 1.82 MPa, 3.2 mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 111 °C ASTM D648	Instrumented Dart Impact Total Energy, 23°C	67	J	ASTM D3763
Izod Impact, notched 80°10°3 +23°C 64 kl /m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 13 kl /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 13 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⁾ Vicat Softening Temp, Rate B/50 135 SC ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 122 °C ASTM D648 ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 8E-05 1/°C ASTM D648 ASTM D648	Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*3 - 30°C 13 Kl/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 13 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 THERMAL ⁽¹⁾ VI ISO 179/1eU ISO 179/1eU Yicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 111 °C ASTM D648 CTE, 40°C to 40°C, flow 8:605 1/°C ASTM E831	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 kl/m² ISO 179/1eA Charpy 30°C, V-notch Edgew 80*10*3 sp=62mm 13 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⁾ Vicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 111 °C ASTM D648 CTE, -40°C to 40°C, flow 8.605 1/°C ASTM E831	Izod Impact, notched 80*10*3 +23°C	64	kJ/m²	ISO 180/1A
Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 13 kJ/m² ISO 179/1eA 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⁾ NB kJ/m² ISO 179/1eU Vicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 111 °C ASTM D648 CTE, -40°C to 40°C, flow 8.E05 1/°C ASTM E31	Izod Impact, notched 80*10*3 -30°C	13	kJ/m²	ISO 180/1A
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⁾ Vicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 111 °C ASTM D648 CTE, -40°C to 40°C, flow 8.605 1/°C ASTM E831	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	Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	13	kJ/m²	ISO 179/1eA
THERMAL ⁽¹⁾ °C ASTM D1525 Vicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 111 °C ASTM D648 CTE, -40°C to 40°C, flow 8.605 1/°C ASTM E831	Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
Vicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 111 °C ASTM D648 CTE, 40°C to 40°C, flow 8.605 1/°C ASTM E831	Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
Vicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 111 °C ASTM D648 CTE, 40°C to 40°C, flow 8.605 1/°C ASTM E831	THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed 111 °C ASTM D648 CTE, -40°C to 40°C, flow 8.E-05 1/°C ASTM E831		135	°C	ASTM D1525
CTE, -40°C to 40°C, flow 8.E-05 1/°C ASTM E831	HDT, 0.45 MPa, 3.2 mm, unannealed	122	°C	ASTM D648
	HDT, 1.82 MPa, 3.2mm, unannealed	111	°C	ASTM D648
CTE, -40°C to 40°C, xflow 8.E-05 1/°C ASTM E831	CTE, -40°C to 40°C, flow	8.E-05	1/°C	ASTM E831
	CTE, -40°C to 40°C, xflow	8.E-05	1/°C	ASTM E831

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	8.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASS	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	129	°C	ISO 306
Vicat Softening Temp, Rate B/120	130	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	115	°C	ISO 75/Af
Relative Temp Index, Elec ⁽²⁾	105	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	105	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	105	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.2	-	ASTM D792
Density	1.2	g/cm ³	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽³⁾	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	25	g/10 min	ASTM D1238
Density	1.2	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.3	%	ISO 62-1
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
OPTICAL ⁽¹⁾			
Light Transmission, 2.54 mm	88	%	ASTM D1003
Haze, 2.54 mm	<1	%	ASTM D1003
Refractive Index	1.582	-	ASTM D542
ELECTRICAL ⁽¹⁾			
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 3	≥1	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 1	≥1	mm	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E121562-100911705	-	
UL Recognized, 94HB Flame Class Rating	≥0.7	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	105 – 110	°C	
Drying Time	3 - 4	Hrs	
Drying Time (Cumulative)	24	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 305	°C	
Nozzle Temperature	255 – 300	°C	
Front - Zone 3 Temperature	260 – 305	°C	
Middle - Zone 2 Temperature	250 – 295	°C	
Rear - Zone 1 Temperature	240 - 280	°C	
Mold Temperature	50 – 80	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	35 – 75	rpm	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Shot to Cylinder Size	40 - 60	%	
Vent Depth	0.038 - 0.076	mm	

- (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

MORE INFORMATION

molding and gas-assist molding.

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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