

LEXAN™ COPOLYMER HFD1711

REGION EUROPE

DESCRIPTION

25 MFR LEXAN High Flow Ductile Copolymer

TYPICAL PROPERTY VALUES

Revision 20240624

MECXAMUCAL ⁽¹⁾ Viral ATM D638 Tensils Strass, yik, Type I, S0 mm /min 60 M/a ATM D638 Tensils Strain, yik, Type I, S0 mm /min 60 M/a ATM D638 Tensils Strain, yik, Type I, S0 mm /min 132 % ATM D638 Tensils Strain, yik, Type I, S0 mm /min 132 % ATM D638 Tensils Strain, yik, Type I, S0 mm /min 2230 M/a ATM D638 Tensils Korks, yik I, 3 mm /min, S0 mm span 2220 M/a ATM D730 Flexard Moduku, 1 3 mm /min, S0 mm span 2220 M/a ASTM D730 Tensils Korks, yik I, 50 mm /min 62 M/a SD 527 Tensils Korks, yik I, 50 mm /min 61 M/a SD 527 Tensils Korks, yik I, 50 mm /min 61 M/a SD 527 Tensils Korks, yik I, 70 mm /min 100 M/a SD 527 Tensils Korks, yik I, 70 mm /min 9 M/a SD 527 Tensils Korks, yik I, 70 mm /min 10 N/a SD 527 Tensils Korks, yik I, 70 mm /min 10 SD 180 SD 180	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tensile Stress, birk, Type I, 50 mm/min60MPaASTM D638Tensile Strain, vid, Type I, 50 mm/min132%ASTM D638Tensile Strain, birk, Type I, 50 mm/min132%ASTM D638Tensile Modulus, 5 mm /min2230MPaASTM D638Revaral Stress, yid, 1.3 mm/min, 50 mm span220MPaASTM D790Revaral Modulus, 1.3 mm/min, 50 mm span220MPaASTM D790Revaral Modulus, 1.3 mm/min, 50 mm span220MPaASTM D790Tensile Stress, break, 50 mm/min62MPaBS0 527Tensile Stress, break, 50 mm/min63MPaBS0 527Tensile Stress, break, 50 mm/min123%BS0 527Tensile Strass, break, 50 mm/min123%BS0 527Tensile Strass, break, 50 mm/min1280MPaBS0 180Lod Impact, notched, 30°C78JJmASTM D256Lod Impact, notched, 30°C8JJmASTM D256Lod Impact, unotched S0°10'3 +22°C64JJm ² BS0 180/14Lod I	MECHANICAL ⁽¹⁾			
Tensile Strain, Vid. Type I, 50 mm /min 6 % ASIM D638 Tensile Strain, brk, Type I, 50 mm /min 122 % ASIM D638 Tensile Modulus, 5 mm /min 2230 Ma ASIM D638 Flexural Stees, (d, 1.3 mm /min, 50 mm span 9 Ma ASIM D790 Hardness, Rockwell R 120 - ASIM D785 Tensile Stees, yield, 50 mm /min 6 Ma 150 527 Tensile Stees, break, 50 mm /min 6 % 80 527 Tensile Stees, break, 50 mm /min 6 % 80 527 Tensile Stees, break, 50 mm /min 128 % 80 527 Tensile Stees, break, 50 mm /min 128 Ma 50 178 Flexural Modulus, 2 mm /min 9 Ma 50 178 Tensile Modulus, 2 mm /min 1280 Ma 50 178 Tensile Modulus, 2 mm /min 9 Ma 50 178 Tensile Modulus, 2 mm /min 9 Ma 50 178 Tensile Modulus, 2 mm /min 9 Ma 50 178 Tensile Modulus, 2 mm /min <	Tensile Stress, yld, Type I, 50 mm/min	59	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 m/min 132 % ASTM D638 Tensile Modulus, 5 mm/min 2230 MPa ASTM D638 Flexural Modulus, 5 mm/min, 50 mm span 99 MPa ASTM D790 Flexural Modulus, 1 mm/min, 50 mm span 2200 MPa ASTM D790 Harciness, Rockwell R 120 - ASTM D785 Tensile Stress, yield, 50 mm/min 62 MPa Boo S27 Tensile Stress, break, 50 mm/min 63 MSa Boo S27 Tensile Stress, yield, 50 mm/min 63 So S27 So S27 Tensile Modulus, 1 mm/min 123 % Boo S27 Tensile Modulus, 2 mm/min 01 MPa Boo S27 Tensile Modulus, 2 mm/min 1280 MPa Boo S27 Tensile Modulus, 2 mm/min 1280 MPa Boo S27 Ized Impact, notched, 23°C 812 J/m ASTM D256 Ized Impact, notched, 32°C 78 J/m ASTM D256 Ized Impact, notched, 910°3 - 23°C 67 J ASTM D256 Ized Impact, no	Tensile Stress, brk, Type I, 50 mm/min	60	MPa	ASTM D638
Tensile Modulus, 5mm/min 2230 MPa ASTM D638 Flexural Stress, yild, 1.3 mm/min, 50 mm span 99 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2200 MPa ASTM D780 Tensile Stress, yield, 50 mm/min 62 MPa S0 527 Tensile Stress, break, 50 mm/min 64 MPa S0 527 Tensile Stress, break, 50 mm/min 62 MPa S0 527 Tensile Stress, yield, 2 mm/min 61 % S0 527 Tensile Stress, yield, 2 mm/min 2180 MPa S0 527 Tensile Modulus, 1 mm/min 2180 MPa S0 178 Flexural Stress, yield, 2 mm/min 90 MPa S0 178 Tensile Modulus, 2 mm/min 2180 MPa S0 178 MPACT ¹¹ 10 MS1 S0 178 Ized Impact, notched, 30°C 125 JJm ASTM 0256 Ized Impact, notched, 80°C 32°C 126 Jma S0 180/10 Ized Impact, notched, 30°C 126 JJm S0 180/10 Ized Impact, notched, 8	Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D638
Flexural Xeress, yid, 1.3 mm/min, 50 mm span99MFaASTM D790Hardness, Rockwell R120MPaASTM D790Hardness, Rockwell R120%10S0527Tensile Stress, yield, 50 mm/min65MPaS0527Tensile Stress, bresk, 50 mm/min6%10S0527Tensile Stress, yield, 20 mm/min123%10S0527Tensile Stress, yield, 20 mm/min2180MPaS0527Tensile Stress, yield, 20 mm/min0MPaS0527Tensile Modulus, 1 mm/min90MPaS0578Hexural Xerss, yield, 20 mm/min90MPaS0178Hexural Modulus, 2 mm/min91MPaS0178Tensile Modulus, 2 mm/min90MPaS0178Hexural Xerss, yield, 20 mm/min91MPaS0178Ideau Tensile Modulus, 2 mm/min91MPaS0178Hexural Modulus, 2 mm/min91MPaS0178Ideau Tensile Antoched, 30°C812JJmASTM D256Izod Impact, notched, 30°C812JJmS0180Izod Impact, notched, 30°C81S0140S0180Izod Impact, unotched S010°3 +23°C64KJm²S0180/14Izod Impact, unotched S010°3 +23°C13KIm²S0180/14Izod Impact, unotched S010°3 +23°C13KIm²S0180/14Izod Impact, unotched S010°3 +23°C13KIm²S0180/14Izod Impact, unotched S010°3 +23°C13S0140S0140Izod Impact, unotched S010°3 +23°C <t< td=""><td>Tensile Strain, brk, Type I, 50 mm/min</td><td>132</td><td>%</td><td>ASTM D638</td></t<>	Tensile Strain, brk, Type I, 50 mm/min	132	%	ASTM D638
Hearral 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 50.527 Tensile Stress, break, 50 mm/min 63 K0.527 50.527 Tensile Strain, yield, 50 mm/min 123 % 50.527 Tensile Strain, break, 50 mm/min 2180 MPa 50.527 Tensile Strain, break, 50 mm/min 2180 MPa 50.527 Tensile Modulus, 1 mm/min 2180 MPa 50.178 Hexural Modulus, 2 mm/min 2180 MPa 50.178 Ideal Impact, notched, 23°C 812 J/m ASTM 0256 Izod Impact, notched, 30°C 789 J/m ASTM 0256 Izod Impact, notched 30°C 789 J/m ASTM 0256 Izod Impact, unotched 80°10°3 + 23°C 81 M/m ² 50.180/10 Izod Impact, unotched 80°10°3 + 23°C 81 M/m ² 50.180/10 Izod Impact, unotched 80°10°3 + 23°C 81 M/m ² 50.180/11A Izod Impac	Tensile Modulus, 5 mm/min	2230	MPa	ASTM D638
Hardness, Rockweil R120ASTM D785Tensile Stress, yield, 50 mm/min62MPaIS0 527Tensile Stress, break, 50 mm/min65MPaIS0 527Tensile Strain, break, 50 mm/min123%IS0 527Tensile Strain, break, 50 mm/min123%IS0 527Tensile Strain, break, 50 mm/min2180MPaIS0 527Tensile Modulus, 1 mm/min2180MPaIS0 527Flexural Stress, yield, 2 mm/min90MPaIS0 178Tensile Kand, otched, 3277MPaIS0 178IMPACT ¹⁰ VVVVIzod Impact, notched, 30°C789J/mASTM D256Izod Impact, notched, 30°C10JIS0 6063Instrumented Dart Impact Total Energy, 23°CN8K//m2IS0 180/10Izod Impact, unotched 80°10°3 +23°C64K//m2IS0 180/10Izod Impact, unotched 80°10°3 +23°C13K//m2IS0 180/14Izod Impact, unotched 80°10°3 +23°C13K//m2IS0 180/14Izod Impact, unotched 80°10°3 -23°C13K//m2IS0 180/14Izod Impact, unotched 80°10°3 -23°C13ISO 179/14AISO 179/14AIzod Impact, unotched 80°10°3 -26°Cm	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, yield, 50 mm/min123%50 527Tensile Strain, break, 50 mm/min123%50 527Tensile Modulus, 1 mm/min180MPa50 527Flexural Kross, yield, 2 mm/min90MPa50 178Flexural Kross, yield, 2 mm/min180MPa50 577Flexural Kross, yield, 2 mm/min180MPa50 178Flexural Kross, yield, 2 mm/min180MPa50 178Idoulus, 2 mm/min180MPa50 178Idoulus, 2 mm/min180MPa50 178Idoulus, 2 mm/min180MPa50 178Idoulus, 2 mm/min180MPa50 178Idoulpact, notched, 30°C8121/mASTM D256Izod Impact, notched, 9°C7891/mMSTM D256Izod Impact, notched 80°10°3 +23°C67JS0 180/10Izod Impact, notched 80°10°3 +23°CNBK/m²50 180/10Izod Impact, notched 80°10°3 +262mm<	Flexural Modulus, 1.3 mm/min, 50 mm span	2220	MPa	ASTM D790
Tensile Strain, yield, 50 mm/min 65 MPa ISO 527 Tensile Strain, yield, 50 mm/min 6 % ISO 527 Tensile Strain, break, 50 mm/min 123 % ISO 527 Tensile Strain, break, 50 mm/min 2180 MPa ISO 527 Tensile Strain, break, 50 mm/min 2180 MPa ISO 527 Flexual Modulus, 2 mm/min 0 MPa ISO 178 Flexual Modulus, 2 mm/min 2180 MPa ISO 178 Inscription 1 1 ISO 178 Isod Impact, notched, 23°C 812 J/m ASTM 0256 Izod Impact, notched, 30°C 789 J/m ASTM 0256 Izod Impact, notched 80°10°3 + 23°C 67 J ASTM 0256 Izod Impact, notched 80°10°3 + 23°C 8 KJ/m² ISO 180/10 Isod Impact, notched 80°10°3 + 23°C 64 KJ/m² ISO 180/14 Izod Impact, notched 80°10°3 + 23°C 64 KJ/m² ISO 180/14 Izod Impact, notched 80°10°3 + 23°C 64 KJ/m² ISO 180/14 Charpy	Hardness, Rockwell R	120		ASTM D785
Tensile Strain, yield, 50 mm/min6%%0 527Tensile Strain, break, 50 mm/min123%150 527Tensile Modulus, 1 mm/min2180MPa50 527Flexural Stress, yield, 2 mm/min90MPa50 178Flexural Modulus, 2 mm/min2180MPa50 178Impact, notched, 23°C310MPa50 178Lood Impact, notched, 30°C789J/mASTM D256Izod Impact, notched, 30°C125J/mASTM D256Izod Impact, notched 80°10°3 +23°C67JS0 6603Izod Impact, notched 80°10°3 +32°CNBKl/m²50 180/14Izod Impact, notched 80°10°3 +32°C13Kl/m²50 180/14Izod Impact, notched 80°10°3 +32°C13Kl/m²50 180/14Izod Impact, notched 80°10°3 +32°C88Kl/m²50 180/14Izod Impact, notched 80°10°3 +32°C13Kl/m²50 179/1eAIzod Impact, notched 80°10°3 +32°C13Kl/m²50 179/1eAIcod Impact, notched 80°10°3 +32°C13Kl/m²50 179/1eAIcod Impact, notched 80°10°3 +52°C13Kl/m²50 179/1eAIcod Impact, notche	Tensile Stress, yield, 50 mm/min	62	MPa	ISO 527
Tensile Strain, break, 50 mm/min123%ISO 527Tensile Modulus, 1 mm/min2180MPaISO 527Hexural Stress, yield, 2 mm/min90MPaISO 178Hexural Modulus, 2 mm/min2180MPaISO 178Impact, notched, 23°C812J/mASTM D256Izod Impact, notched, 0°C789J/mASTM D256Izod Impact, notched, 30°C125J/mASTM D256Ikutiaxial Impact10JSO 180/10Instrumented Dart Impact Total Energy, 23°C67J/mASTM D3763Izod Impact, notched 80°10°3 +23°CNBKJ/m²ISO 180/10Izod Impact, notched 80°10°3 +23°C64KJ/m²ISO 180/10Izod Impact, notched 80°10°3 -30°C13KJ/m²ISO 180/1AIzod Impact, notched 80°10°3 -sp-62mm73KJ/m²ISO 180/1AIcod Impact, notched 80°10°3 -sp-62mmNBKJ/m²ISO 180/1AIcod Impact, Othotch Edgew 80°10°3 sp-62mmNBKJ/m²ISO 180/1AIchary 23°C, Unnotch Edgew 80°10°3 sp-62mmNBKJ/m²ISO 179/1eAChary 23°C, Unnotch Edgew 80°10°3 sp-62mm<	Tensile Stress, break, 50 mm/min	65	MPa	ISO 527
Tensile Modulus, 1 mm/min2180MPaISO 527Flexural Stress, yield, 2 mm/min90MPaISO 178Flexural Modulus, 2 mm/min2180MPaISO 178IMPACT ⁽¹⁾ ISO 178ISO 178Izod Impact, notched, 23°C8121/mASTM D256Izod Impact, notched, 30°C7891/mASTM D256Multiaxial Impact10JISO 6603Instrumented Darl Impact, Total Energy, 23°C67JASTM D3763Izod 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 180/1AIzod Impact, otched 60°10°3 sp=62mm13kl/m²ISO 179/1eACharpy 23°C, Unotch Edgew 80°10°3 sp=62mmNBkl/m²ISO 179/1eACharpy 30°C, Vnotch Edgew 80°10°3 sp=62mmNBkl/m²ISO 179/1eACharpy 30°C, Unotch Edgew 80°10°3 sp=62mm13Kl/m²ISO 179/1eACharpy 30°C, Unotch Edgew 80°10°3 sp=62mmNBkl/m²ISO 179/1eACharpy 30°C, Unotch Edgew 80°10°3 sp=62mmNBkl/m²ISO 179/1eATHERML ⁽¹⁾ VVXIM D1525ISOHDT, 0.45 MFR, 3.2 mm, unannealed122°CASTM D1525HDT, 0.45 MFR, 3.2 mm, unannealed111°CASTM D648HDT, 0.45 MFR, 3.2 mm, unannealed111°CASTM D648HDT, 0.45 MFR, 3.2 mm, unannealed111°CASTM D648HDT,	Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Hexural Stress, yield, 2 mm/min90MPa50 178Hexural Modulus, 2 mm/min2180MPa50 178IMPACT ⁽¹⁾ Impact, notched, 23°C812J/mASTM D256Izod Impact, notched, 0°C789J/mASTM D256Izod Impact, notched, 30°C10JS0 6603Multiaxial Impact10JS0 6603Instrumented Dart Impact Total Energy, 23°C67JASTM D363Izod Impact, unotched 80°10°3 +23°CNBKJ/m2S0 180/10Izod Impact, notched 80°10°3 +23°CNBKJ/m2S0 180/10Izod Impact, notched 80°10°3 spe32m73KJ/m2ISO 180/14Izod Impact, notched 80°10°3 spe32m73KJ/m2ISO 179/1eAIzod Impact, notched 80°10°3 spe32m73KJ/m2ISO 179/1eACharpy 30°C, Unotch Edgew 80°10°3 spe62mNBKJ/m2ISO 179/1eACharpy 30°C, Unotch Edgew 80°10°3 spe62mNBKJ/m2S0 179/1eACharpy 30°C, Unotch Edgew 80°10°3 spe62mNBKJ/m2KJ/m2S0 179/1eACha	Tensile Strain, break, 50 mm/min	123	%	ISO 527
Hexural Modulus, 2 mm/n2180MPaIsO 178IMPACT ⁽¹⁾ Exod Impact, notched, 23°C8121/mASTM D256Izod Impact, notched, 0°C7891/mASTM D256Izod Impact, notched, 30°C1251/mASTM D256Multiaxial Impact110JIsO 6603Instrumented Dart Impact Total Energy, 23°C67JASTM D3763Izod Impact, unnotched 80°10°3 +23°CNBKl/m²IsO 180/10Izod Impact, unnotched 80°10°3 -30°CNBKl/m²IsO 180/10Izod Impact, notched 80°10°3 -30°C13Kl/m²IsO 180/14Izod Impact, notched 80°10°3 spe62mm73Kl/m²IsO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mm73Kl/m²IsO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mm73Kl/m²IsO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mm735%CASTM D1525THERMAL ⁽¹⁾ YYYYYKas MID 1525Vicat Softening Temp, Rate B/50135°CASTM D1525HDT, 0.45 MPa, 3.2 mm, unannealed122°CASTM D648HDT, 1.82 MPa, 3.2 mm, unannealed111°CASTM D648HDT, 0.45 Choro°C, flow8£051/°CASTM E831	Tensile Modulus, 1 mm/min	2180	MPa	ISO 527
Impact "Impact Izod Impact, notched, 23°C 812 J/m ASTM D256 Izod Impact, notched, 0°C 789 J/m ASTM D256 Izod Impact, notched, 30°C 125 J/m ASTM D256 Multiaxial Impact 10 J S0 603 Istrumented Dat Impact Total Energy, 23°C 67 J ASTM D3763 Izod Impact, notched 80°10°3 + 23°C NB KJ/m² S0 180/10 Izod Impact, notched 80°10°3 + 23°C 64 KJ/m² S0 180/14 Izod Impact, notched 80°10°3 + 23°C 64 KJ/m² S0 180/14 Izod Impact, notched 80°10°3 - 23°C 13 KJ/m² S0 180/14 Charpy 23°C, Vnotch Edgew 80°10°3 sp=62mm 73 KJ/m² S0 179/14 Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB KJ/m² S0 179/14 Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB KJ/m² S0 179/14 Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB KJ/m² S0 179/14 Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB KJ/m² S0 179/14 <tr< td=""><td>Flexural Stress, yield, 2 mm/min</td><td>90</td><td>MPa</td><td>ISO 178</td></tr<>	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 Impact100JISO 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 -30°C13KJ/m²ISO 180/1AIzod Impact, notched 80°10°3 -sp=62mm73KJ/m²ISO 180/1ACharpy 23°C, V-notch Edgew 80°10°3 sp=62mmNBKJ/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 179/1eATHERMAL ⁽¹⁾ VISO 179/1eAISO 179/1eATHERMAL ⁽¹⁾ TISO 179/1eAISO 179/1eATHERMAL ⁽¹⁾ VISO 179/1eAISO 179/1eATHERMAL ⁽¹⁾ ISO 179/1eAISO 179/1eATHERMAL ⁽¹⁾	Flexural Modulus, 2 mm/min	2180	MPa	ISO 178
Izod impact, notched, 23°C812J/mASTM D256Izod impact, notched, 0°C789J/mASTM D256Izod impact, notched, 30°C125J/mASTM D256Multiaxial Impact100JISO 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 -30°C13KJ/m²ISO 180/1AIzod Impact, notched 80°10°3 -sp=62mm73KJ/m²ISO 180/1ACharpy 23°C, V-notch Edgew 80°10°3 sp=62mmNBKJ/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 179/1eATHERMAL ⁽¹⁾ VISO 179/1eAISO 179/1eATHERMAL ⁽¹⁾ TISO 179/1eAISO 179/1eATHERMAL ⁽¹⁾ VISO 179/1eAISO 179/1eATHERMAL ⁽¹⁾ ISO 179/1eAISO 179/1eATHERMAL ⁽¹⁾	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 Kl/m² ISO 180/10 Izod Impact, unnotched 80°10°3 +23°C NB Kl/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C NB Kl/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C O ASTM D256 ISO 180/10 Izod Impact, notched 80°10°3 +23°C NB Kl/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C G4 Kl/m² ISO 180/14 Izod Impact, notched 80°10°3 +23°C G4 Kl/m² ISO 180/14 Izod Impact, notched 80°10°3 sp=62mm TG 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⁾ T T Store 179/1eA Store 179/1eA Vicat Softening Temp, Rate		812	J/m	ASTM D256
Multiaxial Impact 110 J ISD 6603 Instrumented Dart Impact Total Energy, 23°C 67 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISD 180/1U Izod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISD 180/1U Izod Impact, unnotched 80°10°3 +23°C 64 kJ/m² ISD 180/1A Izod Impact, notched 80°10°3 +23°C 13 kJ/m² ISD 180/1A Izod Impact, notched 80°10°3 -30°C 13 kJ/m² ISD 180/1A Izod Impact, notched 80°10°3 sp=62mm 73 kJ/m² ISD 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm NB kJ/m² ISD 179/1eA Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² ISD 179/1eU THERMAL ⁽¹⁾ NB kJ/m² ISD 179/1eU Vicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 0.45 MPa, 3.2 m, unannealed 122 °C ASTM D648 HDT, 1.82 MPa, 3.2 m, unannealed 111 °C ASTM D648	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 kl/m2 ISO 180/10 Izod Impact, unnotched 80°10°3 -30°C NB kl/m2 ISO 180/10 Izod Impact, notched 80°10°3 -30°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 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⁾ ISO ISO 179/1eU ISO 179/1eU ISO 179/1eU Vicat Softening Temp, Rate B/50 135 C ASTM D1525 ID HDT, 1.82 MPa, 3.2 mm, unannealed 111 C	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 -30°C NB kl/m² ISO 180/1U Izod Impact, notched 80°10°3 -30°C 64 kl/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 13 kl/m² ISO 180/1A Izod Impact, notched 80°10°3 sp=62mm 73 kl/m² ISO 179/1eA Charpy 23°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 179/1eA 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 179/1eU THERMAL ⁽¹⁾ NB SO 179/1eA ISO 179/1eU ISO 179/1eU Vicat Softening Temp, Rate B/50 135 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 122 °C ASTM D648 HDT, 4.82 MPa, 3.2mm, unannealed 111 °C ASTM D648 <td>Multiaxial Impact</td> <td>110</td> <td>J</td> <td>ISO 6603</td>	Multiaxial Impact	110	J	ISO 6603
Izod Impact, unnotched 80*10*3 -30°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 -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 23°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 NB kl/m2 ISO 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 kJ m² ISO 180/1A Izod Impact, notched 80*10*3 +23°C 13 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 13 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 179/1eU THERMAL ⁽¹⁾ Vicat Softening Temp, Rate B/50 NB kJ m² ISO 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 CTE, -40°C to 40°C, flow 8E:05 1/°C ASTM E831	Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*3 -30°C 13 k/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 73 kl/m² ISO 179/1eA Charpy 23°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⁾ NB kl/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 8:05 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 Vicat Softening Temp, Rate B/50 135 SS 0179/1eU 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.E-05 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 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⁾ NB kl/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.E·05 1/°C ASTM E831	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⁾ ISO 179/1eU ISO 179/1eU 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.E·05 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⁾ 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.E-05 1/°C ASTM E831	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.E-05 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.E·05 1/°C ASTM E831	Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
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.E-05 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	Vicat Softening Temp, Rate B/50	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	≥1.1	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 1	≥1.1	mm	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	<u>E45329-100911709</u>	-	
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 molding and gas-assist molding.

MORE INFORMATION

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

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