

LEXANTM COPOLYMER HFD1014

REGION ASIA

DESCRIPTION

7 MFR LEXAN HFD Copolymer

TYPICAL PROPERTY VALUES

Revision 20240621

MECKANNECAL. ¹⁹ Tensils Stress, Vid. Type I. 50 mm / min58MPaASTM D638Tensils Stress, Kype I. 50 mm / min6%ASTM D638Tensils Stress, Kype I. 50 mm / min142%ASTM D638Tensils Stress, Kyp, Type I. 50 mm / min142%ASTM D638Tensils Stress, Kym, Tyme I. 50 mm / min2260MPaASTM D730Tensils Kyse, Kype I. 50 mm / min, 50 mm span2240MPaASTM D730Tensils Kyse, Kype I. 50 mm / min, 50 mm span2240MPaMSTM D730Tensils Kyse, Kype I. 50 mm / min, 50 mm span60MPa150 527Tensils Kyse, Kype I. 50 mm / min60MPa150 527Tensils Kyse Kype I. 50 mm / min150 527150 527Tensils Kyse Kype I. 50 mm / min150 527150 527Tensils Kyse Kype I. 50 mm / min150 527 </th <th>PROPERTIES</th> <th>TYPICAL VALUES</th> <th>UNITS</th> <th>TEST METHODS</th>	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tensile Stress, brk, Type I, 50 mm/min67MPaATM D638Tensile Strain, vid, Type I, 50 mm/min142%ATM D638Tensile Modulus, 5 mm/min2260MPaASTM D638Flexural Stress, yid, 1.3 mm/min, 50 mm span2260MPaASTM D790Flexural Modulus, 1.3 mm/min, 50 mm span2240MPaASTM D790Flexural Modulus, 1.3 mm/min, 50 mm span2240MPaASTM D790Tensile Stress, break, 50 mm/min60MPaISD 527Tensile Stress, break, 50 mm/min73MPaISD 527Tensile Stress, break, 50 mm/min60%ISD 527Tensile Stress, break, 50 mm/min2080MPaISD 527Tensile Stras, break, 50 mm/min2080MPaISD 527Multavial Impact, morthed, S0170302MPaISD 180Multavial Impact, morthed, S017089J/maISD 180Izod Impact, notched, 30103S0MPaISD 180/110Izod Impact,	MECHANICAL ⁽¹⁾			
Tensile Strain, Vid. Type I, 50 mm /min 6 % ASIM D638 Tensile Strain, brk, Type I, 50 mm /min 142 % ASIM D638 Tensile Modulus, 5 mm /min 2260 MPa ASIM D638 Resural Stress, (d, 1.3 mm /min, 50 mm span 8 MPa ASIM D790 Hardness, Rockwell R 120 - ASIM D785 Tensile Stress, yield, 50 mm /min 60 MPa IS0 527 Tensile Stress, head, 50 mm /min 6 % IS0 527 Tensile Stress, head, 50 mm /min 6 % IS0 527 Tensile Stress, head, 50 mm /min 141 % IS0 527 Tensile Stress, horeak, 50 mm /min 2070 MPa IS0 178 Recurd Modulus, 2 mm/min 9 MPa IS0 178 Ibeural Stress, yield, 2 mm /min 9 MPa IS0 178 Ibeural Stress, yield, 2 mm /min 9 MPa IS0 178 Ibeural Stress, yield, 2 mm /min 10 S0 603 IMpa Ibeural Stress, yield, 2 mm /min 134 IS0 180 IS0 178	Tensile Stress, yld, Type I, 50 mm/min	58	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 m/min 142 % ASTM D638 Tensile Modulus, 5 mm/min 2260 MPa ASTM D638 Flexural Modulus, 5 mm/min, 50 mm span 98 MPa ASTM D638 Flexural Modulus, 1 mm/min, 50 mm span 2240 MPa ASTM D730 Tensile Stress, vield, 50 mm/min 60 MPa BSD 527 Tensile Stress, break, 50 mm/min 60 MPa BSD 527 Tensile Stress, break, 50 mm/min 6 SD 527 Ensile Stress, break, 50 mm/min BSD 527 Tensile Strain, break, 50 mm/min 411 SD 527 Ensile Strain, break, 50 mm/min BSD 527 Tensile Modulus, 1 mm/min 2080 MPa BSD 527 Tensile Strain, break, 50 mm/min 89 MPa BSD 78 Rexural Modulus, 2 mm/min 966 J/m ASTM 0256 Izod Impact, notched, 30°C 89 J MSTM 0256 Izod Impact, notched 80°10°3 + 23°C R ASTM 0256 Izod Impact, unotched 80°10°3 + 23°C R ASTM 0256 Izod Impact, notched 8°10°3 + 23°C R <td>Tensile Stress, brk, Type I, 50 mm/min</td> <td>67</td> <td>MPa</td> <td>ASTM D638</td>	Tensile Stress, brk, Type I, 50 mm/min	67	MPa	ASTM D638
Tensile Modulus, 5 mm /min2260MPaASTM D638Flexural Stress, yild, 1.3 mm /min, 50 mm span98MPaASTM D790Flexural Modulus, 1.3 mm /min, 50 mm span2240MPaASTM D785Tensile Stress, speck, 50 mm /min60MPaIS0 527Tensile Stress, yield, 50 mm /min61%1S0 527Tensile Stress, break, 50 mm /min6%1%50 527Tensile Stress, preak, 50 mm /min6%1%50 527Tensile Stress, preak, 50 mm /min2080MPaIS0 527Tensile Stress, yield, 2 mm /min2080MPaIS0 527Tensile Stress, yield, 2 mm /min2070MPaIS0 527Tensile Stress, yield, 2 mm /min2070MPaIS0 527Tensile Stress, yield, 2 mm /min96//mS0 577MMACT ¹¹ L%1S0 527Tensile Stress, yield, 2 mm /min89//mS0 178MPACT ¹¹ LS0 603//mS0 180MMACT ¹¹ S0 6603//mS0 180//mMultakai Impact134JS0 6603//mInstrumented Dat Impact Total Energy, 23*CN8K//m ² IS0 180/10Izod Impact, unotched 80*10*3 +23*C72K//mIS0 180/10Izod Impact, unotched 80*10*3 +23*C72K//mIS0 180/1AIzod Impact, unotched 80*10*3 +23*C82K//m ² IS0 180/1AIzod Impact, unotched 80*10*3 +23*C82K//m ² IS0 180/1AIzod Impact, unotched 80*10*3 +23*C	Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D638
Hexaral Stress, yid, 1.3 mm/min, 50 mm span98MPaASIM D790Hardness, Rockwell R120MPaASIM D790Hardness, Rockwell R120MPaSD S27Tensile Stress, yield, 50 mm/min6MPaSD S27Tensile Stress, break, 50 mm/min6%SD S27Tensile Stress, yield, 20 mm/min6%SD S27Tensile Stress, yield, 20 mm/min0200MPaSD S27Tensile Stress, yield, 20 mm/min2080MPaSD 527Tensile Modulus, 1 mm/min2080MPaSD 78Flexaral Ktoss, yield, 2 mm/min89SD 78Flexaral Ktoss, yield, 2 mm/min9070MPaSD 78MMACT ¹¹ 1SD 78Muthaid Ilmpact, notched, 30°C961/mASIM D256Muthaid Ilmpact141SD 6603Izod Impact, notched, 30°CN81/mSD 180/14Muthaid Ilmpact141SD 180/14Izod Impact, notched 80°10°3 + 23°C72N8SD 180/14Izod Impact, notched 80°10°3 + 23°C72SD 180/14SD 180/14Izod Impact, notched 80°10°3 + 23°C72SD 180/14SD 180/14Izod Impact, notched 80°10°3 + 23°C82Kl/m2SD 180/14Izod Impact, notched 80°10°3 + 23°C82Kl/m2SD 180/14Izod Impact, notched 80°10°3 + 23°C83Kl/m2SD 180/14Izod Impact, notched 80°10°3 + 26Zmm82Kl/m2SD 179/1eAIzod Impact, notched 80°10°3 + 26Zmm <td< td=""><td>Tensile Strain, brk, Type I, 50 mm/min</td><td>142</td><td>%</td><td>ASTM D638</td></td<>	Tensile Strain, brk, Type I, 50 mm/min	142	%	ASTM D638
Heaural Modulus. 1.3 mm/min, 50 mm yan 2240 MPa ASTM D790 Hardness, Rockwell R 120 - ASTM D785 Tensile Stress, yield, 50 mm/min 60 MPa IS0 527 Tensile Stress, break, 50 mm/min 73 MPa IS0 527 Tensile Stress, break, 50 mm/min 6 % IS0 527 Tensile Stress, yield, 2 mm/min 60 MPa IS0 527 Tensile Modulus, 1 mm/min 2080 MPa IS0 527 Tensile Modulus, 2 mm/min 2080 MPa IS0 178 Hexural Modulus, 2 mm/min 89 MPa IS0 178 Ized Impact, notched, 23°C 899 J/m ASTM 0256 Isturented Dat Impact Total Energy, 23°C 78 J IS0 180/10 Ized Impact, unotched 80°10°3 -23°C N8 M/m ² IS0 180/10 Ized Impact, unotched 80°10°3 -23°C R8 M/m ² IS0 180/10 Ized Impact, unotched 80°10°3 -23°C N8 M/m ² IS0 180/10 Ized Impact, unotched 80°10°3 -23°C R6 M/m ² IS0 180/10	Tensile Modulus, 5 mm/min	2260	MPa	ASTM D638
Hardness, Rockweil R120ASTM D785Tensile Stress, yield, 50 mm/min60MPaISO 527Tensile Stress, break, 50 mm/min73MPaISO 527Tensile Strain, break, 50 mm/min6%ISO 527Tensile Strain, break, 50 mm/min141%ISO 527Tensile Modulus, 1 mm/min2080MPaISO 527Tensile Modulus, 2 mm/min2080MPaISO 527Tensile Modulus, 2 mm/min2080MPaISO 178Tensile Modulus, 2 mm/min2080MPaISO 178Tensile Modulus, 2 mm/min9MPaISO 178Tensile Modulus, 2 mm/min9MPaISO 178Tensile Modulus, 2 mm/min10ASTM D256Instance, notched, 30°C89J/mASTM D256Multiaxial Impact134JISO 180/10Ized Impact, nontched 80°10°3 +23°CN8KJm2ISO 180/10Ized Impact, unotched 80°10°3 +262mmN8KJm2ISO 179/14Charpy 30°C, Unotch Edgew 80°10°3 sp=62mmN8KJm2ISO 179/14Charpy 30°C	Flexural Stress, yld, 1.3 mm/min, 50 mm span	98	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min60MPaIS0 527Tensile Strain, yield, 50 mm/min6%IS0 527Tensile Strain, yield, 50 mm/min141%IS0 527Tensile Strain, break, 50 mm/min2080MPaIS0 527Tensile Modulus, 1 mm/min2080MPaIS0 178Flexural Kross, yield, 2 mm/min80MPaIS0 178Tensile Modulus, 2 mm/min2070MPaIS0 178Idevard Modulus, 2 mm/min966J/mATM 256Izod Impact, notched, 30°C999J/mATM 256Idol Impact, notched, 30°C78JIS0 180/10Instrumeted Dart Impact Total Energy, 23°C78JIS0 180/10Izod Impact, unotched 80°10°3 +23°CN8KJ/m²IS0 180/10Izod Impact, unotched 80°10°3 +23°C72KJ/m²IS0 180/10Izod Impact, unotched 80°10°3 +23°C63KJ/m²IS0 180/14Izod Impact, unotched 80°10°3 +23°C72KJ/m²IS0 180/14Izod Impact, unotched 80°10°3 +23°C82KJ/m²IS0 180/14Izod Impact, notched 80°10°3 +23°CN8KJ/m²IS0 180/14Izod Impact, notched 80°10°3 +23°CN8KJ/m²IS0 180/14Izod Impact, notched 80°10°3 +23°CN8KJ/m²IS0 180/14Izod Impact, notched 80°10°3 +262mm80KJ/m²IS0 179/14ACharpy 23°C, Unotch Edgew 80°10°3 spe62mmN8KJ/m²IS0 179/14ACharpy 23°C, Unotch Edgew 80°10°3 spe62mmN8KJ/m²IS0 179/14A <td>Flexural Modulus, 1.3 mm/min, 50 mm span</td> <td>2240</td> <td>MPa</td> <td>ASTM D790</td>	Flexural Modulus, 1.3 mm/min, 50 mm span	2240	MPa	ASTM D790
Tensile Strain, yield, 50 mm/min 73 MPa 60 527 Tensile Strain, yield, 50 mm/min 6 % 150 527 Tensile Strain, break, 50 mm/min 141 % 150 527 Tensile Modulus, 1 mm/min 2080 MPa 150 527 Flexual Modulus, 2 mm/min 89 MPa 150 178 Flexual Modulus, 2 mm/min 2070 MPa 150 178 Izod Impact, notched, 23°C 966 1/m ASTM D256 Izod Impact, notched, 30°C 899 1/m ASTM D256 Izod Impact, unotched 80°10°3 +23°C 78 J ASTM D3763 Izod Impact, unotched 80°10°3 +23°C N8 K/m² 150 180/10 Izod Impact, unotched 80°10°3 +23°C 83 K/m² 150 180/10 Izod Impact, unotched 80°10°3 +23°C 83 K/m² 150 180/10 Izod Impact, unotched 80°10°3 +23°C 83 K/m² 150 180/10 Izod Impact, unotched 80°10°3 +23°C 63 K/m² 150 180/10 Izod Impact, unotched 80°10°3 +23°C 63 K/m² 150 180/10	Hardness, Rockwell R	120	-	ASTM D785
Tensile Strain, yield, 50 mm/min 6 % 100 527 Tensile Strain, break, 50 mm/min 141 % 100 527 Tensile Modulus, 1 mm/min 2080 MPa 100 527 Flexural Stress, yield, 2 mm/min 89 MPa 100 178 Flexural Modulus, 2 mm/min 2070 MPa 100 178 IMPACT ⁽¹⁾ 50 178 100 178 Lood Impact, notched, 30°C 899 MPa ASTM D256 Lood Impact, notched, 30°C 899 J MSO 603 Instrumented Dart Impact Total Energy, 23°C 78 J ASTM D256 Lood Impact, notched 80°10°3 +23°C NB KJ/m ² ISO 180/10 Lood Impact, notched 80°10°3 +23°C NB KJ/m ² ISO 180/10 Lood Impact, notched 80°10°3 +23°C 72 KJ/m ² ISO 180/14 Lood Impact, notched 80°10°3 +23°C 69 KJ/m ² ISO 180/14 Lood Impact, notched 80°10°3 +23°C 72 KJ/m ² ISO 180/14 Lood Impact, notched 80°10°3 +23°C 69 KJ/m ² ISO 179/1eU <	Tensile Stress, yield, 50 mm/min	60	MPa	ISO 527
Tensile Strain, break, 50 mm/min 141 % ISO 527 Tensile Modulus, 1 mm/min 2080 MPa ISO 527 Flexural Stress, yield, 2 mm/min 89 MPa ISO 178 Flexural Modulus, 2 mm/min 2070 MPa ISO 178 IMPACT ⁽¹⁾ SO 178 Impact, notched, 23°C 966 J/m ASTM D256 Izod Impact, notched, 30°C 134 J ISO 6603 Multixial Impact 134 J ASTM D3763 Izod Impact, notched 80°10°3 +23°C 78 J ASTM D3763 Izod Impact, notched 80°10°3 +23°C NB KJ/m ² ISO 180/1U Izod Impact, notched 80°10°3 +23°C 72 KJ/m ² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 72 KJ/m ² ISO 180/1A Izod Impact, notched 80°10°3 spe52mm 82 KJ/m ² ISO 179/1eA Charpy 33°C, Vnotch Edgew 80°10°3 spe52mm 88 KJ/m ² ISO 179/1eA Charpy 33°C, Unnotch Edgew 80°10°3 spe52mm NB KJ/m ² ISO 179/1eA <t< td=""><td>Tensile Stress, break, 50 mm/min</td><td>73</td><td>MPa</td><td>ISO 527</td></t<>	Tensile Stress, break, 50 mm/min	73	MPa	ISO 527
Tensile Modulus, 1 mm/min2080MPaISO 527Flexural Stress, yield, 2 mm/min89MPaISO 178Flexural Modulus, 2 mm/min2070MPaISO 178IMPACT ⁽¹⁾ ISO 178ISO 178Izod Impact, notched, 23°C966J/mATM 0256Izod Impact, notched, 30°C899J/mASTM 0256Multixali Impact134JISO 180/10Izod Impact, unotched 80°10°3 +23°C78J/mSIO 180/10Izod Impact, unotched 80°10°3 +23°CNBKl/m²ISO 180/10Izod Impact, unotched 80°10°3 +23°C72Kl/m²ISO 180/10Izod Impact, unotched 80°10°3 +23°C63Kl/m²ISO 180/14Izod Impact, unotched 80°10°3 sp=62mm82Kl/m²ISO 180/14Ico Arpy 23°C, Vnotch Edgew 80°10°3 sp=62mm82Kl/m²ISO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/1eATHERMAL ⁽¹⁾ ISOISO 179/1eAISO 179/1eAThermal freight Edgem 80°10°3 sp=62mmNBKl/m²ISO 179/1eACharpy 23°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m²ISO 179/1eATHERMAL ⁽¹⁾ ISOISO 179/1eAISO 179/1eATHERMAL ⁽¹⁾ ISO 180/1AISO 179/1eAISO 179/1eA	Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Hexural Stress, yield, 2 mm/min89MPaISO 178Hexural Modulus, 2 mm/min2070MPaISO 178IMPACT ⁽¹⁾ ImpactImpactSo 178Izod Impact, notched, 23°C966J/mASTM D256Izod Impact, notched, 30°C899J/mASTM D256Multiaxial Impact134JIsO 6603Instrumented Dart Impact Total Energy, 23°C78JASTM D3763Izod Impact, unnotched 80°10°3 +23°CNBM/m2IsO 180/10Izod Impact, unnotched 80°10°3 +23°CNBM/m2IsO 180/10Izod Impact, ottched 80°10°3 -30°C63Kl/m2IsO 180/10Izod Impact, ottched 80°10°3 -962mm82Kl/m2IsO 179/1eAIzod Impact, Notche Edgew 80°10°3 sp=62mm80Kl/m2IsO 179/1eACharpy 23°C, Unnotch Edgew 80°10°3 sp=62mmNBKl/m2IsO 179/1eA <th< td=""><td>Tensile Strain, break, 50 mm/min</td><td>141</td><td>%</td><td>ISO 527</td></th<>	Tensile Strain, break, 50 mm/min	141	%	ISO 527
Hexural Modulus, 2 mm/min2070MPaISO 178IMPACT ⁽¹⁾ Impact. notched, 23°C966J/mASTM D256Izod Impact, notched, 30°C899J/mASTM D256Multiaxial Impact134JISO 6603Instrumented Dart Impact Total Energy, 23°C78JASTM D3763Izod Impact, unotched 80°10°3 +23°CNBK/m²ISO 180/10Izod Impact, notched 80°10°3 -30°CNBK/m²ISO 180/10Izod Impact, notched 80°10°3 -30°C63K/lm²ISO 180/10Izod Impact, notched 80°10°3 spe32mm82K/lm²ISO 180/14Izod Impact, notched 80°10°3 spe32mm82K/lm²ISO 179/1eAIzod Impact, notched 80°10°3 spe32mmNBK/lm²ISO 179/1eACharpy 23°C, Unnotch Edgew 80°10°3 spe32mmNBK/lm²ISO 179/1eATHERKAL ⁽¹⁾ TTKKKVicat Softening Temp, Rate B/50136°CASTM D525HDT, 0.45 MPA, 3.2 mm, unannealed155°CASTM D648CTE, 40°C tof 40°C, filow8.6051/°CASTM D648CTE, 40°C tof 40°C, filow8.6051/°CASTM D648	Tensile Modulus, 1 mm/min	2080	MPa	ISO 527
Impact "Impact SATM D256 Izod Impact, notched, 30°C 899 J/m ASTM D256 Multiaxia Impact 134 Iso 6603 Instrumented Dart Impact Total Energy, 23°C 78 J ASTM D256 Izod Impact, unnotched 80°10°3 + 23°C NB Is/m² Iso 180/10 Izod Impact, notched 80°10°3 + 23°C NB Is/m² Iso 180/10 Izod Impact, notched 80°10°3 + 23°C 72 Iso 180/11 Iso 180/14 Izod Impact, notched 80°10°3 + 23°C 63 Is/m² Iso 180/14 Izod Impact, notched 80°10°3 sp=62mm 82 Iso 180/14 Iso 179/14A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 82 Iso 179/14A Iso 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB Iso 179/14A Iso 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB Iso 179/14A Iso 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB Iso 179/14A Iso 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB Iso 179/14A Iso 179/14A Charpy 30°C, Unnotch Edgew 80°10°3 s	Flexural Stress, yield, 2 mm/min	89	MPa	ISO 178
Izod impact, notched, 30°C966J/mASTM D256Izod impact, notched, 30°C134JSO 6603Instrumented Dart Impact Total Energy, 23°C78JASTM D3763Izod Impact, unnotched 80°10°3 +23°CNBkJ/m²SO 180/10Izod Impact, unnotched 80°10°3 +23°CNBkJ/m²SO 180/10Izod Impact, notched 80°10°3 +23°C72kJ/m²ISO 180/10Izod Impact, notched 80°10°3 -30°C63kJ/m²ISO 180/14Izod Impact, notched 80°10°3 -spe62mm63kJ/m²ISO 180/14Charpy 23°C, V-notch Edgew 80°10°3 spe62mm69kJ/m²ISO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mmNBkJ/m²ISO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mmNBkJ/m²ISO 179/1eUTHERMAL ⁽¹⁾ TSO 179/1eUSO 179/1eUVicat Softening Temp, Rate B/50136°CASTM D1525HDT, 0.45 MPA, 3.2 mm, unannealed115°CASTM D648HDT, 1.82 MPA, 3.2 mm, unannealed115°CASTM D648HDT, 1.40°C to 40°C, flow8.6051/°CASTM E831CTE, 40°C to 40°C, flow8.6051/°CASTM E831	Flexural Modulus, 2 mm/min	2070	MPa	ISO 178
Izod impact, notched, 30°C966J/mASTM D256Izod impact, notched, 30°C134JSO 6603Instrumented Dart Impact Total Energy, 23°C78JASTM D3763Izod Impact, unnotched 80°10°3 +23°CNBkJ/m²SO 180/10Izod Impact, unnotched 80°10°3 +23°CNBkJ/m²SO 180/10Izod Impact, notched 80°10°3 +23°C72kJ/m²ISO 180/10Izod Impact, notched 80°10°3 -30°C63kJ/m²ISO 180/14Izod Impact, notched 80°10°3 -spe62mm63kJ/m²ISO 180/14Charpy 23°C, V-notch Edgew 80°10°3 spe62mm69kJ/m²ISO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mmNBkJ/m²ISO 179/1eACharpy 30°C, Unnotch Edgew 80°10°3 spe62mmNBkJ/m²ISO 179/1eUTHERMAL ⁽¹⁾ TSO 179/1eUSO 179/1eUVicat Softening Temp, Rate B/50136°CASTM D1525HDT, 0.45 MPA, 3.2 mm, unannealed115°CASTM D648HDT, 1.82 MPA, 3.2 mm, unannealed115°CASTM D648HDT, 1.40°C to 40°C, flow8.6051/°CASTM E831CTE, 40°C to 40°C, flow8.6051/°CASTM E831	IMPACT ⁽¹⁾			
Multiaxial Impact 134 J ISO 6603 Instrumented Dart Impact Total Energy, 23°C 78 J ASTM D3763 Izod Impact, unnotched 80°10°3 + 23°C NB kJ/m² ISO 180/1U Izod Impact, unnotched 80°10°3 + 23°C NB kJ/m² ISO 180/1U Izod Impact, unnotched 80°10°3 + 23°C NB kJ/m² ISO 180/1U Izod Impact, notched 80°10°3 + 23°C 72 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 spe62mm 63 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 spe62mm 82 kJ/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 spe62mm NB kJ/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 spe62mm NB kJ/m² ISO 179/1eU THERMAL ⁽¹⁾ V ISO 179/1eU ISO 179/1eU Vicat Softening Temp, Rate B/50 136 °C ASTM D1525 HDT, 0.45 MPA, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPA, 3.2 mm, unannealed 115 °C ASTM D648 CTE, 40°Ct o 40°C, flow E	Izod Impact, notched, 23°C	966	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C 78 1 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, unnotched 80°10°3 + 23°C NB kJ/m² ISO 180/10 Izod Impact, notched 80°10°3 + 23°C 63 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 spe62mm 82 kJ/m² ISO 179/1eA Charpy 30°C, V-notch Edgew 80°10°3 spe62mm 69 kJ/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 spe62mm NB kJ/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 spe62mm NB kJ/m² ISO 179/1eA Charpy 30°C, Unnotch Edgew 80°10°3 spe62mm NB kJ/m² ISO 179/1eA THERMAL ⁽¹⁾ Vicat Softening Tenp, Rate B/SO NB So 179/1eA ISO 179/1eA Vicat Softening Tenp, Rate B/SO 136 °C ASTM D1525 HDT, 1.82 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 8.605 1/°C AST	Izod Impact, notched, -30°C	899	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 +23°C 72 kl/m² ISO 180/1A Izod Impact, notched 80*10*3 +23°C 63 kl/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 82 kl/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 69 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 179/1eU 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 8/50 136 °C ASTM D1525 HDT, 1.82 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 115 °C ASTM D648 <	Multiaxial Impact	134	J	ISO 6603
Izod Impact, unnotched 80°10°3·30°C NB k/m² ISO 180/10 Izod Impact, notched 80°10°3·30°C 72 k/m² ISO 180/1A Izod Impact, notched 80°10°3·30°C 63 k/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 82 k/m² ISO 179/1eA Charpy 30°C, V-notch Edgew 80°10°3 sp=62mm 69 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 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 Charpy 30°C, Unnotch Edgew 80°10°3 sp=62mm NB k/m² ISO 179/1eU THERMAL ⁽¹⁾ Sto 179/1eU ISO 179/1eU Vicat Softening Temp, Rate B/50 136 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 125 °C ASTM D648 CTE, 40°C to 40°C, flow 8.E05 1/°C ASTM E831 CTE, 40°C to 40°C,	Instrumented Dart Impact Total Energy, 23°C	78	J	ASTM D3763
Izod Impact, notched 80*10*3 +23°C 72 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 -30°C 63 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 82 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 69 kJ/m² ISO 179/1eA Charpy -30°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 Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ/m² ISO 179/1eU Vicat Softening Temp, Rate B/50 136 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2rm, unannealed 115 °C ASTM D648 CTE, -40°C to 40°C, flow 8.E05 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 63 k/ m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 82 k/ m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 69 k/ m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm NB k/ m² ISO 179/1eU Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm NB k/ m² ISO 179/1eU Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm NB k/ m² ISO 179/1eU Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm NB k/ m² ISO 179/1eU Vicat Softening Temp, Rate B/50 136 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 115 °C ASTM D648 CTE, -40°C to 40°C, flow 8.E05 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 82 kl/m2 ISO 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 69 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/50 136 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 115 °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	72	kJ/m²	ISO 180/1A
Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 69 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/50 136 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 115 °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	63	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 Vicat Softening Temp, Rate B/50 136 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 115 °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	82	kJ/m²	ISO 179/1eA
Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ/m² ISO 179/1eU THERMAL ⁽¹⁾	Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	69	kJ/m²	ISO 179/1eA
THERMAL ⁽¹⁾ °C ASTM D1525 Vicat Softening Temp, Rate B/50 136 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 115 °C ASTM D648 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	Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
Vicat Softening Temp, Rate B/50 136 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 115 °C ASTM D648 CTE, -40°C to 40°C, flow 8.605 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 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/50 136 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 125 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 115 °C ASTM D648 CTE, -40°C to 40°C, flow 8.605 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 8.605 1/°C ASTM E831	THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed 115 °C ASTM D648 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		136	°C	ASTM D1525
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	HDT, 0.45 MPa, 3.2 mm, unannealed	125	°C	ASTM D648
CTE, -40°C to 40°C, xflow 8.E-05 1/°C ASTM E831	HDT, 1.82 MPa, 3.2mm, unannealed	115	°C	ASTM D648
· · · · ·	CTE, -40°C to 40°C, flow	8.E-05	1/°C	ASTM E831
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	ASTM E831
	CTE, -40°C to 40°C, flow	8.E-05	1/°C	ISO 11359-2

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CHEMISTRY THAT MATTERS



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	130	°C	ISO 306
Vicat Softening Temp, Rate B/120	131	°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	7	g/10 min	ASTM D1238
Density	1.2	g/cm³	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	6	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
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E207780-100912743		
UL Recognized, 94HB Flame Class Rating	≥0.75	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	
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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