

LEXANTM COPOLYMER EXL9111

REGION ASIA

DESCRIPTION

LEXAN EXL9111 polycarbonate-Siloxane copolymer resin is a high flow, high impact, non-chlorinated, non-brominated flame retardant opaque injection molding (IM) grade.

TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES TYPICAL VALUES UNITS EST METHODS MECHANICAL.************************************				
Hardness, Rockwell L 92.2 - May 10.00 ASTM D683 Tensile Stress, Jul, Type I, 50 mm/min 64 MPa ASTM D683 Tensile Stress, Jul, Type I, 50 mm/min 46 % ASTM D683 Tensile Strain, Jul, Type I, 50 mm/min 46 % ASTM D683 Tensile Strain, Jul, Type I, 50 mm/min 2397 MPa ASTM D683 Tensile Stress, July L 60 MPa ASTM D683 Tensile Stress, July L 47 MPa 05527 Tensile Strain, July Delay 45 % 05527 Tensile Strain, July Delay 45 % 05527 Tensile Strain, July Delay 45 % 05527 Tensile Strain, July Delay 467 % 05527 Tensile Strain, July Delay 45 45 05527 Tensile Strain, July Delay 45 <t< th=""><th>PROPERTIES</th><th>TYPICAL VALUES</th><th>UNITS</th><th>TEST METHODS</th></t<>	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tensile Stress, bft, Type I, 50 mm/min 60 MPa ASTM D638 Tensile Stress, bft, Type I, 50 mm/min 54 APP ASTM D638 Tensile Strain, bft, Type I, 50 mm/min 76.4 8 ASTM D638 Tensile Strain, bft, Type I, 50 mm/min 76.4 8 ASTM D638 Tensile Stress, break 287 MPa SSTM D638 Tensile Stress, break 47 MPa 50 527 Tensile Stress, break 45 8 50 527 Tensile Stress, break 48 45 50 527 Tensile Stress, break 48 60 79 45 70 Tensile Stress, break 48 80 527 50 527 Tensile Stress, break 48 67 47 Mm 50 527 Tensile Stress, break 48 50 527 47 Mm 60 52 52 Tensile Stress, break 48 mm/min	MECHANICAL (1)			
Tensile Stress, brk, Type I, 50 mm/min 54 MPa ASTM D638 Tensile Strain, Jrk, Type I, 50 mm/min 4.6 8 ASTM D638 Tensile Strain, Jrk, Type I, 50 mm/min 62 ASTM D638 ASTM D638 Tensile Strain, Jrk, Type I, 50 mm/min 60 MPa ASTM D638 Tensile Stress, Jreak 60 MPa D5 527 Tensile Strain, Jred Ry 47 MPa D5 527 Tensile Strain, Jred Ry 4.5 8 D5 527 Tensile Strain, Jred Ry 4.5 MPa D5 527 Tensile Strain, Jred Ry MPa ASTM D790 D178 Tensile Strain, Jred Ry MPa ASTM D790 D178 Tensile Strain, Jred Ry MPa ASTM D790 D178 Tensile Strain, Jred Ry MPa	Hardness, Rockwell L	92.2	-	ASTM D785
Tensile Strain, yld, Type i, 50 mm/min 4.6 \$ ASTM D638 Tensile Strain, brk, Type i, 50 mm/min 76.4 % ASTM D638 Tensile Strain, brk, Type i, 50 mm/min 287 Mea ASTM D638 Tensile Strain, break 60 Mea D6 527 Tensile Strain, break 47 Mea ISO 527 Tensile Strain, break 46.7 % ISO 527 Tensile Strain, break 247 Mea ISO 527 Tensile Strain, break 247 Mea ISO 527 Tensile Modulus, 1 mm/min 2440 Mea ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 95 Mea ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 96 Mea ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 91 ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 92 ASTM D790 Becural Modulus, 1.3 mm/min, 50 mm span 93 ASTM D80 S0 178 Becural Stress, break, 1.3 mm/min, 50 mm span 93 Mea Mark ASTM D790	Tensile Stress, yld, Type I, 50 mm/min	60	MPa	ASTM D638
Tensile Strain, brk, Type, 1.50 mm/min 76.4 \$ ASTM D638 Tensile Modulus, 50 mm/min 2387 Mana ASTM D638 Tensile Stress, yield 60 M79 50.527 Tensile Stress, break 47 M89 50.527 Tensile Strain, break 46.7 \$ 50.527 Tensile Strain, yield 45.7 \$ 180.527 Tensile Strain, yield 24.7 M89 180.527 Tensile Modulus, 1 mm/min 96.7 M89 180.527 Flexural Modulus, 1.3 mm/min, 50 mm span 96.7 40 ASTM D790 Flexural Stress, brk, 1.3 mm/min, 50 mm span 240 M89 ASTM D790 Flexural Modulus, 2 mm/min 9 3 ASTM D790 Flexural Modulus, 2 mm/min, 50 mm span 9 40 M89 ASTM D790 Flexural Modulus, 2 mm/min, 50 mm span 9 3 M89 ASTM D790 Flexural Modulus, 2 mm/min 5 3 M9 ASTM D790 I got Impact, notched, 23°C 5 3 M9 <t< th=""><th>Tensile Stress, brk, Type I, 50 mm/min</th><th>54</th><th>MPa</th><th>ASTM D638</th></t<>	Tensile Stress, brk, Type I, 50 mm/min	54	MPa	ASTM D638
Tensile Modulus, 50 mm/min 2887 MPa ASTM D638 Tensile Stress, yield 60 MPa 150 527 Tensile Stress, break 47 MPa 150 527 Tensile Stress, break 46.7 % 50 527 Tensile Strain, yield 45 % 50 527 Tensile Modulus, 1 mm/min 2347 MPa O5 527 Flexural Stress, yid, 1.3 mm/min, 50 mm span 96.7 MPa ASTM D790 Flexural Stress, brek, 2 mm/min 94 MPa ASTM D790 Flexural Stress, brek, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, brek, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, brek, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, brek, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, brek, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, brek, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, brek, 1.3 mm/min, 50 mm span 91 <t< th=""><th>Tensile Strain, yld, Type I, 50 mm/min</th><th>4.6</th><th>%</th><th>ASTM D638</th></t<>	Tensile Strain, yld, Type I, 50 mm/min	4.6	%	ASTM D638
Tensile Stress, yield 60 MPa 50.527 Tensile Stress, break 47 MPa 50.527 Tensile Strain, break 46.7 % 50.527 Tensile Modulus, 1 mm/min 45.0 % 50.527 Tensile Modulus, 1 mm/min, 50 mm span 96.7 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 96.7 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 96.7 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Modulus, 2 mm/min 95 MPa ASTM D790 Flexural Modulus, 2 mm/min 91 ASTM D250 Tensile Modulus, 2 mm/min MPa ASTM D790 Flexural Modulus, 2 mm/min 91 ASTM D481 Tensile Modulus, 2 mm/min MPa ASTM D790 Flexural Modulus, 2 mm/min 91 ASTM D481 Tensile Modulus, 2 mm/min MPa ASTM D481 Bloar Linguisting Stress, brick, 13 mm/min, 50 mm span 91 ASTM D481 Tensile Modulus, 2 mm/min MPa ASTM D481	Tensile Strain, brk, Type I, 50 mm/min	76.4	%	ASTM D638
Tensile Stress, break 47 MPa ISO 527 Tensile Strain, break 46.7 % ISO 527 Tensile Strain, yield 4.5 % ISO 527 Tensile Modulus, 1 mm/min 2347 MPa ISO 527 Tensile Modulus, 1 mm/min, 50 mm span 96.7 MPa ASTM D790 Flexural Stress, yidi, 1.3 mm/min, 50 mm span 2440 MPa ASTM D790 Flexural Stress, break, 2 mm/min 93 MPa ASTM D790 Flexural Stress, break, 2 mm/min 95 MPa ASTM D790 Flexural Stress, break, 2 mm/min 95 MPa ASTM D790 Flexural Stress, break, 2 mm/min 95 MPa ASTM D790 Flexural Stress, break, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, break, 2 mm/min 95 MPa ASTM D790 Flexural Stress, break, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, break, 2 mm/min 95 MPa ASTM D790 Elexural Stress, break, 2 mm/min 45 ASTM D59 <tr< th=""><th>Tensile Modulus, 50 mm/min</th><th>2387</th><th>MPa</th><th>ASTM D638</th></tr<>	Tensile Modulus, 50 mm/min	2387	MPa	ASTM D638
Tensile Strain, break 46.7 % 50.527 Tensile Strain, yield 4.5 % 50.527 Tensile Modulus, 1 mm/min 2347 MPa ISO.527 Flexural Stress, yid, 1.3 mm/min, 50 mm span 96.7 MPa ASTM D790 Flexural Stress, break, 2 mm/min 93 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 93 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 93 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 93 MPa ASTM D790 Flexural Stress, break, 2 mm/min, 50 mm span 91 MPa ASTM D790 Breat Land Modulus, 2 mm/min 40 MPa ASTM D256 Instruction Stress, break Land Min	Tensile Stress, yield	60	MPa	ISO 527
Tensile Strain, yield 4.5 № ISO 527 Tensile Modulus, 1 mm/min 2347 MPa ISO 527 Flexural Stress, yid, 1.3 mm/min, 50 mm span 96.7 MPa ASTM D790 Flexural Stress, brid, 1.3 mm/min, 50 mm span 2440 MPa ASTM D790 Flexural Stress, brid, 1.3 mm/min, 50 mm span 93 MPa ASTM D790 Flexural Modulus, 2 mm/min 2314 MPa ASTM D790 Flexural Modulus, 2 mm/min, 50 mm span 2314 MPa ASTM D790 Flexural Modulus, 2 mm/min, 50 mm span 2314 MPa ASTM D790 Flexural Modulus, 2 mm/min, 50 mm span 2314 MPa ASTM D790 Flexural Stress, brik, 1.3 mm/min, 50 mm span 2314 MPa ASTM D790 Flexural Stress, brik, 1.3 mm/min, 50 mm span 2314 MPa ASTM D790 Flexural Stress, brik, 1.3 mm/min, 50 mm span 2314 MPa ASTM D790 Brown Stress, brik, 1.3 mm/min, 50 mm span 2314 MPa ASTM D790 Instrument David Stress, brik, 1.3 mm/min, 50 mm span 2314 MPa ASTM D256	Tensile Stress, break	47	MPa	ISO 527
Tensile Modulus, 1 mm/min 2347 MPa ISO 527 Flexural Stress, yld, 1.3 mm/min, 50 mm span 96.7 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2440 MPa ASTM D790 Flexural Stress, break, 2 mm/min 93 MPa ASTM D790 Flexural Stress, brk, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Modulus, 2 mm/min 314 MPa ASTM D790 Impact, 10 mly mack, 10 mly mack	Tensile Strain, break	46.7	%	ISO 527
Flexural Stress, yld. 1.3 mm/min, 50 mm span 96.7 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2440 MPa ASTM D790 Flexural Stress, break, 2 mm/min 93 MPa ASTM D790 Flexural Stress, brk, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Modulus, 2 mm/min 2314 MPa ASTM D256 Impact, 100 University MPa ASTM D256 Impact, 100 MPa ASTM D256 MPa Izod Impact, notiched, 23°C 753 J/m ASTM D256 Izod Impact, unnotched, 23°C NB J/m ASTM D256 Izod Impact, unnotched, 23°C 88 J/m ASTM D3763 Izod Impact, 100 Mpact, 23°C 62.3 J/m ASTM D3763 Izod Impact, 200 Mpact, 23°C 104 I/m² ISO 180/1A Izod Impact, 100 Mpact, 23°C NB I/m² ISO 180/1A Izod Impact, 200 Mpact, 20°C NB I/m² ISO 180/1A Izod Impact, 200 Mpact, 20°C NB I/m² ISO 180/1A	Tensile Strain, yield	4.5	%	ISO 527
Flexural Modulus, 1.3 mm/min, 50 mm span 2440 MPa ASTM D790 Flexural Stress, break, 2 mm/min 93 MPa ISD 178 Flexural Stress, brk, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Iterural Modulus, 2 mm/min 2314 MPa D178 IMPACT ⁽¹⁾ V V V Izod Impact, notched, 23°C 753 J/m ASTM D256 Izod Impact, notched, 23°C NB J/m ASTM D256 Izod Impact, unnotched, 23°C NB J/m ASTM D3763 Izod Impact Total Energy, 23°C 62.5 J/m ASTM D3763 Izod Impact, innotched 80°10°4 +23°C 62.3 J/m² D50 180/1A Izod Impact, notched 80°10°4 +23°C NB J/m² ISO 180/1A Izod Impact, unnotched 80°10°4 +23°C NB J/m² ISO 180/1A Charpy Impact, unnotched, 23°C NB J/m² ISO 180/14 Charpy Impact, unnotched, 23°C NB J/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB J/m² ISO 179/2C	Tensile Modulus, 1 mm/min	2347	MPa	ISO 527
Flexural Stress, break, 2 mm/min 93 MPa ISD 178 Flexural Stress, brk, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Modulus, 2 mm/min 2314 MPa ISD 178 IMPACT ⁽¹⁾ USD 178 ISD 178 IMPACT (1) USD 178 ISD 178 Impact, notched, 23°C 753 J Jm ASTM D256 Izod Impact, notched, 23°C NB J Jm ASTM D256 Izod Impact, unnotched, 23°C NB J Jm ASTM D3763 Instrumented Dart Impact Total Energy, 23°C 62.5 J Mm² ASTM D3763 Izod Impact, unnotched 80°10°4 +23°C 51.3 KJ/m² ISO 180/11A Izod Impact, notched 80°10°4 +23°C NB KJ/m² ISO 180/11A Charpy Impact, notched, 33°C NB KJ/m² ISO 180/11A Charpy Impact, notched, 23°C NB J Jm² ISO 179/2C Charpy Impact, notched, 23°C NB J Jm² ISO 179/2C Charpy Impact, unnotched, 23°C NB J M² ISO 179/2C Charpy Impact, unnotched, 23	Flexural Stress, yld, 1.3 mm/min, 50 mm span	96.7	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span 95 MPa ASTM D790 Flexural Modulus, 2 mm/min 2314 MPa ISO 178 IMPACT ⁽¹⁾ Use of Impact, not ched, 23°C 753 J/m ASTM D256 Izod Impact, not ched, -30°C 124 J/m ASTM D256 Izod Impact, unnot ched, 23°C NB J/m ASTM D4812 Instrumented Dart Impact Total Energy, 23°C 62.5 J ASTM D3763 Izod Impact, not ched 80°10°4 + 23°C 62.3 kJ/m² ISO 180/1A Izod Impact, not ched 80°10°4 + 23°C 104 kJ/m² ISO 180/1A Izod Impact, unnot ched 80°10°4 + 23°C NB kJ/m² ISO 180/1A Izod Impact, unnot ched, 23°C NB kJ/m² ISO 180/1A Charpy Impact, unnot ched, 23°C NB kJ/m² ISO 179/2C Charpy Impact, unnot ched, 23°C NB kJ/m² ISO 179/2C Charpy Impact, unnot ched, 23°C NB kJ/m² ISO 179/2C Charpy Impact, unnot ched, 23°C NB kJ/m² ASTM D648 THERMAL ⁽¹⁾ <th< th=""><th>Flexural Modulus, 1.3 mm/min, 50 mm span</th><th>2440</th><th>MPa</th><th>ASTM D790</th></th<>	Flexural Modulus, 1.3 mm/min, 50 mm span	2440	MPa	ASTM D790
Flexural Modulus, 2 mm/min 2314 MPa ISO 178 IMPACT (1) IMPACT (2) IMPACT (2) IMPACT (3) IMPACT (3) IMPACT (3) ASTM D256 Izod Impact, notched, 23°C 124 J/m ASTM D256 Izod Impact, unnotched, 23°C NB J/m ASTM D4812 Instrumented Dart Impact Total Energy, 23°C 62.5 J/m ASTM D3763 Izod Impact, notched 80*10*4+23°C 51.3 I/m I/m S0 180/1A Izod Impact, notched 80*10*4+23°C NB I/m I/m I/m I/m Izod Impact, unnotched 80*10*4+23°C NB I/m	Flexural Stress, break, 2 mm/min	93	MPa	ISO 178
IMPACT (1) Izod Impact, notched, 23°C 753 J/m ASTM D256 Izod Impact, notched, 30°C 124 J/m ASTM D256 Izod Impact, unnotched, 23°C NB J/m ASTM D4812 Instrumented Dart Impact Total Energy, 23°C 62.5 J ASTM D3763 Izod Impact, notched 80°10°4 +23°C 51.3 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C NB kJ/m² ISO 180/1A Izod Impact, unnotched 80°10°4 +23°C NB kJ/m² ISO 180/1A Izod Impact, unnotched, 23°C NB kJ/m² ISO 180/1A Charpy Impact, notched, 23°C 12.9 kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB KJ KJ KJ KJ KJ KJ <th>Flexural Stress, brk, 1.3 mm/min, 50 mm span</th> <th>95</th> <th>MPa</th> <th>ASTM D790</th>	Flexural Stress, brk, 1.3 mm/min, 50 mm span	95	MPa	ASTM D790
Izod Impact, notched, 23°C 753 J/m ASTM D256 Izod Impact, notched, 30°C 124 J/m ASTM D256 Izod Impact, unnotched, 23°C NB J/m ASTM D4812 Instrumented Dart Impact Total Energy, 23°C 62.5 J ASTM D3763 Izod Impact, notched 80°10°4 +23°C 62.3 J/m² ISO 180/1A Izod Impact, notched 80°10°4 +23°C 104 J/m² ISO 180/1A Izod Impact, unnotched 80°10°4 +23°C NB J/m² ISO 180/1A Charpy Impact, notched, 23°C 12.9 J/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB J/m² SO 179/2C Charpy Impact, unnotched, 23°C NB J/m² SO 179/2C Charpy Impact, unnotched, 23°C NB J/m² SO 179/2C HDT, 1.82 MPa, 3.2 mm, unannealed 111 °C	Flexural Modulus, 2 mm/min	2314	MPa	ISO 178
Izod Impact, notched, -30°C 124 J/m ASTM D256 Izod Impact, unnotched, 23°C NB J/m ASTM D4812 Instrumented Dart Impact Total Energy, 23°C 62.5 J ASTM D3763 Izod Impact, notched B0*10*4 +23°C 62.3 J/m² ASTM D3763 Izod Impact, notched 80*10*4 +23°C 104 KJ/m² ISO 180/1A Izod Impact, unnotched 80*10*4 +23°C NB KJ/m² ISO 180/1U Charpy Impact, notched, 23°C 75.6 KJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB KJ/m² SO 179/2C Charpy Impact, unnotched, 23°C NB KJ/m² SO 179/2C Charpy Impact, unnotched, 23°C NB C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C	IMPACT (1)			
Izod Impact, unnotched, 23°C NB J/m ASTM D4812 Instrumented Dart Impact Total Energy, 23°C 62.5 J ASTM D3763 Izod Impact, notched Bo*10*4 + 23°C 62.3 J/m² ISO 180/1A Izod Impact, notched 80*10*4 + 23°C 104 KJ/m² ISO 180/1A Izod Impact, unnotched 80*10*4 + 23°C NB KJ/m² ISO 180/1U Charpy Impact, unnotched, 23°C 55.6 KJ/m² ISO 179/2C Charpy Impact, unotched, -30°C 12.9 KJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB KJ/m² ISO 179/2C Charpy Impact, unnotched, -30°C NB KJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB KJ/m² KJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB KJ/m² ISO 179/2C ISO 179/2C HDT, 1.82	Izod Impact, notched, 23°C	753	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C 62.5 J ASTM D3763 Instrumented Dart Impact Total Energy, -30°C 62.3 J ASTM D3763 Izod Impact, notched 80°10°4 +23°C 51.3 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 -30°C 104 kJ/m² ISO 180/1A Izod Impact, unnotched 80°10°4 +23°C NB kJ/m² ISO 180/1U Charpy Impact, notched, 23°C 55.6 kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C THERMAL (¹) Impact Mpa, 3.2 mm, unannealed 101 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 103 °C ISO 75/Bf	Izod Impact, notched, -30°C	124	J/m	ASTM D256
Instrumented Dart Impact Total Energy, -30°C 62.3 J ASTM D3763 Izod Impact, notched 80°10°4 +23°C 51.3 kJ/m² ISO 180/1A Izod Impact, notched 80°10°4 -30°C 104 kJ/m² ISO 180/1A Izod Impact, unnotched 80°10°4 +23°C NB kJ/m² ISO 180/1U Charpy Impact, notched, 23°C 55.6 kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C HDT, 1.82 MPa, 3.2mm, unannealed 101 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm 112 °C ISO 75/Bf	Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C 51.3 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 -30°C 104 kJ/m² ISO 180/1A Izod Impact, unnotched 80*10*4 +23°C NB kJ/m² ISO 180/1U Charpy Impact, notched, 23°C 55.6 kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB R C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	Instrumented Dart Impact Total Energy, 23°C	62.5	J	ASTM D3763
Izod Impact, notched 80*10*4-30°C 104 kJ/m² ISO 180/1A Izod Impact, unnotched 80*10*4+23°C NB kJ/m² ISO 180/1U Charpy Impact, notched, 23°C 55.6 kJ/m² ISO 179/2C Charpy Impact, unnotched, -30°C 12.9 kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C THERMAL (¹) HDT, 1.82 MPa, 3.2mm, unannealed 101 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	Instrumented Dart Impact Total Energy, -30°C	62.3	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C NB kJ/m² ISO 180/1U Charpy Impact, notched, 23°C 55.6 kJ/m² ISO 179/2C Charpy Impact, unnotched, -30°C 12.9 kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C THERMAL ⁽¹⁾ V ISO 179/2C HDT, 1.82 MPa, 3.2mm, unannealed 101 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	Izod Impact, notched 80*10*4 +23°C	51.3	kJ/m²	ISO 180/1A
Charpy Impact, notched, 23°C 55.6 kJ/m² ISO 179/2C Charpy Impact, notched, -30°C 12.9 kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C THERMAL (1) HDT, 1.82 MPa, 3.2mm, unannealed 101 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	Izod Impact, notched 80*10*4 -30°C	104	kJ/m²	ISO 180/1A
Charpy Impact, notched, -30°C 12.9 kJ/m² ISO 179/2C Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C THERMAL (1) HDT, 1.82 MPa, 3.2 mm, unannealed 101 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m²	ISO 180/1U
Charpy Impact, unnotched, 23°C NB kJ/m² ISO 179/2C THERMAL ⁽¹⁾ HDT, 1.82 MPa, 3.2mm, unannealed 101 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	Charpy Impact, notched, 23°C	55.6	kJ/m²	ISO 179/2C
THERMAL (1) HDT, 1.82 MPa, 3.2mm, unannealed 101 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	Charpy Impact, notched, -30°C	12.9	kJ/m²	ISO 179/2C
HDT, 1.82 MPa, 3.2mm, unannealed 101 °C ASTM D648 HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	Charpy Impact, unnotched, 23°C	NB	kJ/m²	ISO 179/2C
HDT, 0.45 MPa, 3.2 mm, unannealed 111 °C ASTM D648 HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	THERMAL (1)			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 103 °C ISO 75/Af HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	HDT, 1.82 MPa, 3.2mm, unannealed	101	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 112 °C ISO 75/Bf	HDT, 0.45 MPa, 3.2 mm, unannealed	111	°C	ASTM D648
7 100 100 100 100 100 100 100 100 100 10	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	103	°C	ISO 75/Af
Vicat Softening Temp, Rate B/50 126 °C ASTM D1525	HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	112	°C	ISO 75/Bf
	Vicat Softening Temp, Rate B/50	126	°C	ASTM D1525



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	117	°C	ISO 306
Vicat Softening Temp, Rate B/120	119	°C	ISO 306
CTE, -40°C to 40°C, flow	6.5E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.6E-05	1/°C	ASTM E831
Relative Temp Index, Elec ⁽²⁾	80	°C	UL 746B
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	1.18	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.62	%	ASTM D955
Melt Flow Rate, 300°C/1.2 kgf	20	g/10 min	ASTM D1238
Moisture Absorption (23°C / 50% RH)	0.43	%	ISO 62
ELECTRICAL (1)			
Volume Resistivity	>1E+16	$\Omega.$ cm	ASTM D257
Surface Resistivity	>1E+16	Ω	ASTM D257
Dielectric Constant, 1.1 GHz	2.83	-	SABIC method
Dissipation Factor, 1.1 GHz	0.0061	-	SABIC method
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E207780-103826700	-	
UL Recognized, 94V-0 Flame Class Rating	≥1,2	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥0.8	mm	UL 94
INJECTION MOLDING (4)			
Drying Temperature	100	°C	
Drying Time	3 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 305	°C	
Nozzle Temperature	275 – 300	°C	
Front - Zone 3 Temperature	280 – 305	°C	
Middle - Zone 2 Temperature	275 – 295	°C	
Rear - Zone 1 Temperature	260 – 285	°C	
Mold Temperature	60 – 80	°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.

MORE INFORMATION

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

⁽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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