

LEXANTM VISUALFXTM RESIN FXE1414T

REGION AMERICAS

DESCRIPTION

Clear PC-siloxane copolymer with excellent processability, for Visual fX capability in "Energy" colors. Medium flow. Improved toughness compared to medium flow standard PC in same color. Color package may affect performance.

TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES TYPICAL VALUES UNITS TEST METHODS MECHANICAL. ⁽¹⁾ Ternis Estress, Vid. Type I. 50 mm/min 57 MPa ASTIM D638 Ternis Estress, Vid. Type I. 50 mm/min 99 MPa ASTIM D638 Ternis Estrain, Vid. Type I. 50 mm/min 123.9 % ASTIM D638 Ternis Estrain, Vid. Type I. 50 mm/min 123.9 % ASTIM D638 Ternis Estrain, Vid. Type I. 50 mm/min 12180 MPa ASTIM D638 Flexural Stress, Vid. 1.3 mm/min, 50 mm span 92 MPa ASTIM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2180 MPa ASTIM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2180 MPa ASTIM D790 Ternis Estrain, Vield, 50 mm/min 56 MPa ASTIM D790 Ternis Estrain, Vield, 50 mm/min 108.5 % 80.527 Ternis Estrain, Vield, 50 mm/min 108.5 % 80.527 Ternis Estrain, Vield, 50 mm/min 2300 MPa 80.128 Flexural Modulus, 1 mm/min 88 MPa 80.178 Heavard Stres				
Tensile Stress, Ivit, Type I, 50 mm/min 57 MiPa ASTM D638 Tensile Stress, Dix, Type I, 50 mm/min 5.6 % ASTM D638 Tensile Strain, Juk, Type I, 50 mm/min 123.9 % ASTM D638 Tensile Strain, Juk, Type I, 50 mm/min 21.90 MPa ASTM D638 Tensile Strain, Juk, Type I, 50 mm/min 21.90 MPa ASTM D638 Tensile Stress, Yuk I, 3 mm/min, 50 mm span 21.80 MPa ASTM D790 Tensile Stress, Juk I, 3 mm/min, 50 mm span 21.80 MPa ASTM D790 Tensile Stress, Juk I, 50 mm/min 56 MPa ASTM D790 Tensile Stress, Juk I, 50 mm/min 54 % S0.527 Tensile Strain, Jukid, 50 mm/min 108.5 % S0.527 Tensile Strain, Jukid, 50 mm/min 2300 MPa S0.527 Tensile Strain, Jukid, 50 mm/min 210 MPa S0.527 Tensile Strain, Jukid, 50 mm/min 210 MPa S0.527 Tensile Strain, Jukid, 50 mm/min 210 Mpa S0.527 Tensile Strain, Jukid, 50 mm/min S0	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tensile Stress, brk, Type I, 50 mm/min 59 MPa ASTM D638 Tensile Strain, Juk, Type I, 50 mm/min 5.6 % ASTM D638 Tensile Strain, Juk, Type I, 50 mm/min 2180 MPa ASTM D638 Tensile Modulus, 50 mm/min 2180 MPa ASTM D790 Flexural Stress, Jud, 1.3 mm/min, 50 mm span 92 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 92 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 56 MPa MS 257 Tensile Stress, break, 50 mm/min 55 MPa 150 527 Tensile Stress, break, 50 mm/min 108.5 % 150 527 Tensile Stress, break, 50 mm/min 240 % 150 527 Tensile Stress, break, 50 mm/min 108.5 % 150 527 Tensile Stress, break, 50 mm/min 240 % 150 527 Tensile Stress, break, 50 mm/min 108.5 % 150 527 Tensile Stress, break, 50 mm/min 108.5 % 150 527 Tensile Stress, yeld, 2 mm/min 8 MPa	MECHANICAL (1)			
Tensile Strain, yid. Yipe I. 50 mm/min 5.6 % ASTM D638 Tensile Strain, brk, Yipe I. 50 mm/min 123.9 % ASTM D638 Tensile Modulus, 50 mm/min 2180 MPa ASTM D638 Flexural Modulus, 1.3 mm/min, 50 mm span 2180 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2180 MPa ASTM D790 Tensile Stress, yield, 50 mm/min 56 MPa S0 527 Tensile Stress, Dreak, 50 mm/min 5.4 % S0 527 Tensile Stress, Jield, 2 mm/min 108.5 % S0 527 Tensile Stress, Jield, 2 mm/min 88 MPa S0 527 Tensile Stress, Jield, 2 mm/min 88 MPa S0 527 Tensile Stress, Jield, 2 mm/min 88 MPa S0 527 Tensile Stress, Jield, 2 mm/min 88 MPa S0 527 Tensile Stress, Jield, 2 mm/min 88 MPa S0 527 Tensile Stress, Jield, 2 mm/min 88 MPa S0 178 Tensile Stress, Jield, 2 mm/min 88 MPa S0 178 <td>Tensile Stress, yld, Type I, 50 mm/min</td> <td>57</td> <td>MPa</td> <td>ASTM D638</td>	Tensile Stress, yld, Type I, 50 mm/min	57	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min 123.9 % ASTM D638 Tensile Modulus, 50 mm/min 2180 MPa ASTM D638 Flexural Modulus, 1.3 mm/min, 50 mm span 2180 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2180 MPa ASTM D790 Tensile Stress, yield, 50 mm/min 56 MPa ISO 527 Tensile Stress, Dreak, 50 mm/min 54 MPa ISO 527 Tensile Strain, break, 50 mm/min 108.5 % ISO 527 Tensile Modulus, 1 mm/min 2300 MPa ISO 527 Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 Flexural Modulus, 2 mm/min 88 MPa ISO 178 Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 Elevarial Modulus, 2 mm/min 88 MPa ISO 178 Elevarial Stress, yield, 2 mm/min MS MPa ASTM D256	Tensile Stress, brk, Type I, 50 mm/min	59	MPa	ASTM D638
Tensile Modulus, 50 mm/min 2180 MPa ASTM D638 Flexural Stress, yld, 1.3 mm/min, 50 mm span 92 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2180 MPa ASTM D790 Tensile Stress, yeld, 50 mm/min 55 MPa 50 527 Tensile Stress, break, 50 mm/min 54 % 50 527 Tensile Strain, preak, 50 mm/min 108.5 % 150 527 Tensile Strain, preak, 50 mm/min 108.5 % 150 527 Tensile Strain, preak, 50 mm/min 108.5 % 150 527 Tensile Strain, preak, 50 mm/min 108.5 % 150 527 Tensile Modulus, 1 mm/min 8 MPa 150 178 Elevaral Stress, yield, 2 mm/min 8 MPa 150 178 Flexural Modulus, 2 mm/min 8 MPa 150 178 Indigenary Association of Market MPa 150 178 Indigenary Association of Market 150 178 178 Indigenary Association of Market 150 178 178 178 178 178 178 <td>Tensile Strain, yld, Type I, 50 mm/min</td> <td>5.6</td> <td>%</td> <td>ASTM D638</td>	Tensile Strain, yld, Type I, 50 mm/min	5.6	%	ASTM D638
Flexural Stress, yield, 1.3 mm/min, 50 mm span 92 MFa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2180 MFa ASTM D790 Tensile Stress, yield, 50 mm/min 56 MFa ISO 527 Tensile Stress, break, 50 mm/min 5.4 MFa ISO 527 Tensile Strain, yield, 50 mm/min 5.4 % ISO 527 Tensile Strain, break, 50 mm/min 2300 MFa ISO 527 Flexural Stress, yield, 2 mm/min 88 MFa ISO 527 Flexural Modulus, 2 mm/min 88 MFa ISO 178 Ized Impact, unotched, 23°C 824 I/m ASTM D256 Ized Impact, unotched, 30°C NB I/m ISO 180/14 Ized Impact, unotched 80°10°3 -30°C S I/m ISO 180/14	Tensile Strain, brk, Type I, 50 mm/min	123.9	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span 2180 MPa ASTM D790 Tensile Stress, yield, 50 mm/min 56 MPa ISO 527 Tensile Stress, break, 50 mm/min 55 MPa ISO 527 Tensile Strain, break, 50 mm/min 108.5 % ISO 527 Tensile Strain, break, 50 mm/min 108.5 % ISO 527 Tensile Modulus, 1 mm/min 2300 MPa ISO 527 Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 Flexural Modulus, 2 mm/min 88 MPa ISO 178 Flexural Modulus, 2 mm/min 88 MPa ASTM D256 Instrumentin 824 J/m ASTM D256 Izod Impact, notched, 23°C 824 J/m ASTM D256 Istor Impact, unnotched 80°10°3 +23°C 75 J/m ASTM D256 Izod Impact, unnotched 80°10°3 +23°C 88 J/m² ISO 180/11 Izod Impact, unnotched 80°10°3 +23°C 55 J/m² ISO 180/11 Izod Impact, notched 80°10°3 +23°C 55 J/m² ISO 180/11	Tensile Modulus, 50 mm/min	2180	MPa	ASTM D638
Tensile Stress, yield, 50 mm/min 56 MPa ISO 527 Tensile Stress, break, 50 mm/min 5.4 % ISO 527 Tensile Strain, yield, 50 mm/min 5.4 % ISO 527 Tensile Strain, break, 50 mm/min 108.5 % ISO 527 Tensile Modulus, 1 mm/min 2300 MPa ISO 127 Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 Flexural Modulus, 2 mm/min 824 J/m ASTM 0256 IMPACT ************************************	Flexural Stress, yld, 1.3 mm/min, 50 mm span	92	MPa	ASTM D790
Tensile Stress, break, 50 mm/min 55 MPa ISO 527 Tensile Strain, yield, 50 mm/min 5.4 % ISO 527 Tensile Strain, break, 50 mm/min 108.5 % ISO 527 Tensile Modulus, 1 mm/min 2000 MPa ISO 527 Tensile Modulus, 2 mm/min 88 MPa ISO 178 Flexural Modulus, 2 mm/min 88 MPa ISO 178 IMPACT (1) U WPa ISO 178 IMPACT (2) U MPa ASTM D256 Izod Impact, notched, 23°C 824 J/m ASTM D256 Izod Impact, notched, 30°C 712 J/m ASTM D256 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, unnotched 80°10°3 +23°C NB kl/m² ISO 180/10 Izod Impact, unnotched 80°10°3 spe2cm NB kl/m² ISO 180/10 Izod Impact, unotched 80°10°3 spe2cm NB kl/m² ISO 180/10 Izod Impact, unotch	Flexural Modulus, 1.3 mm/min, 50 mm span	2180	MPa	ASTM D790
Tensile Strain, yield, 50 mm/min 5.4 % ISO 527 Tensile Strain, break, 50 mm/min 108.5 % ISO 527 Tensile Modulus, 1 mm/min 2300 MPa ISO 527 Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 Flexural Modulus, 2 mm/min 2120 MPa ISO 178 IMPACT *** *** SS 078 IMPACT *** *** ASTM D256 Izod Impact, notched, 3°C 824 J/m ASTM D256 Izod Impact, notched, 3°C 712 J/m ASTM D256 Izod Impact, notched 80°10°3 +23°C 75 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C 65 kJ/m² ISO 180/10 Izod Impact, notched 80°10°3 +30°C 65 kJ/m² ISO 180/10 Izod Impact, notched 80°10°3 sp=62mm 70 kJ/m² ISO 180/10 Izod Impact, notched 80°10°3 sp=62mm 80 kJ/m² ISO 180/10 Charpy 30°C, Vnotch Edgew 80°10°3 sp=62mm	Tensile Stress, yield, 50 mm/min	56	MPa	ISO 527
Tensile Strain, break, 50 mm/min 108.5 % ISO 527 Tensile Modulus, 1 mm/min 2300 MPa ISO 527 Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 Impact, 10 Stress, yield, 2 mm/min 2120 MPa ISO 178 Impact, 10 Stress, yield, 2 mm/min 2120 MPa ISO 178 Impact, 10 Stress, yield, 2 mm/min 2120 MPa ISO 178 Impact, 10 Stress, yield, 2 mm/min 2120 MPa ISO 178 Impact, 10 Stress, yield, 2 mm/min 2120 J/m ASTM D3763 Impact, 10 Stress, yield, 2 mm/min 824 J/m ASTM D256 Izod Impact, 10 Stress, yield, 2 mm/min 824 J/m ASTM D256 Izod Impact, 10 Stress, yield, 2 mm/min NB Ix/m ASTM D363 Izod Impact, 10 Stress, yield, 2 mm/min NB Ix/m² ISO 180/10 Izod Impact, 10 Stress, yield, 2 mm/min NB Ix/m² ISO 180/10 Izod Impact, 10 Stress, yield, 2 mm/min ISO 180/11 Ix/m² ISO 180/11 Izod Impact, 10 Stress, yield, 2 mm/min	Tensile Stress, break, 50 mm/min	55	MPa	ISO 527
Tensile Modulus, 1 mm/min 2300 MPa ISO 178 Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 IMPACT ⁽¹⁾ ISO 178 IMPACT ISO 178 IMPACT ⁽¹⁾ ISO 178 ISO 178 Impact, notched, 23°C 824 J/m ASTM D256 Izod Impact, notched, 30°C 712 J/m ASTM D256 Instrumented Dart Impact Total Energy, 23°C 75 J/m ASTM D3763 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 180/1A Izod Impact, notched 80°10°3 +23°C NB kl/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C NB kl/m² ISO 180/1A Izod Impact, notched 80°10°3 sp=62mm 70 kl/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm NB kl/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB kl/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB xl/m² XJ/m² SO	Tensile Strain, yield, 50 mm/min	5.4	%	ISO 527
Flexural Stress, yield, 2 mm/min 88 MPa ISO 178 Flexural Modulus, 2 mm/min 2120 MPa ISO 178 IMPACT (¹) IMPACT (¹) IMPACT (¹) IMPACT (¹) Izod Impact, notched, 23°C 824 J/m ASTM D256 Izod Impact, notched, -30°C 712 J/m ASTM D3763 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 NB kl/m² ISO 180/1U Izod Impact, notched 80°10°3 + 23°C NB kl/m² ISO 180/1A Izod Impact, notched 80°10°3 + 23°C 55 kl/m² ISO 180/1A Izod Impact, notched 80°10°3 sp=62mm 70 kl/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm NB kl/m² ISO 179/1eA Charpy 30°C, V-notch 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 ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed	Tensile Strain, break, 50 mm/min	108.5	%	ISO 527
Flexural Modulus, 2 mm/min 2120 MPa ISO 178 IMPACT (¹) IMPACT (¹) IMPACT (¹) IMPACT (¹) IMPACT (¹) IMPACT (¹) ASTM D256 Izod Impact, notched, -30°C 712 J/m ASTM D256 Instrumented Dart Impact Total Energy, 23°C 75 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB Id/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C NB Id/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C NB Id/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C NB Id/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C 55 Id/m² ISO 180/14 Izod Impact, notched 80°10°3 -23°C 70 Id/m² ISO 180/14 Chary 23°C, V-notch Edgew 80°10°3 sp=62mm NB Id/m² ISO 179/1eA Charyy-30°C, V-notch Edgew 80°10°3 sp=62mm NB Id/m² ISO 179/1eA Charyy-30°C, Unnotch Edgew 80°10°3 sp=62mm NB Id/m² ISO 179/1eA Charyy-30°C, Unnotch Edgew 80°10°3 sp=62mm NB Id/m²	Tensile Modulus, 1 mm/min	2300	MPa	ISO 527
IMPACT (¹¹) Izod Impact, notched, 23°C 824 J/m ASTM D256 Izod Impact, notched, -30°C 712 J/m ASTM D256 Instrumented Dart Impact Total Energy, 23°C 75 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/1U Izod Impact, notched 80°10°3 +23°C NB kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 65 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 sp=62mm 70 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 70 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 ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C	Flexural Stress, yield, 2 mm/min	88	MPa	ISO 178
Izod Impact, notched, 23°C 824 J/m ASTM D256 Izod Impact, notched, -30°C 712 J/m ASTM D256 Instrumented Dart Impact Total Energy, 23°C 75 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C 65 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 55 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 sp=62mm 70 kJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 80 kJ/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB 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⁾ Vicat Softening Temp, Rate A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM E831 CTE, 40°C to 95°C, xflow 6.7E-05 1/°C ASTM E831	Flexural Modulus, 2 mm/min	2120	MPa	ISO 178
Instrumented Dart Impact Total Energy, 23°C 75 J ASTM D256 Instrumented Dart Impact Total Energy, 23°C 75 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB IxJm² ISO 180/1U Izod Impact, unnotched 80°10°3 -30°C NB IxJm² ISO 180/1U Izod Impact, notched 80°10°3 -30°C S6 IxJm² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 55 IxJm² ISO 180/1A Izod Impact, notched 80°10°3 sp=62mm 70 IxJm² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm RB IxJm² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB IxJm² ISO 179/1eA Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB IxJm² ISO 179/1eU Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB IxJm² ISO 179/1eU Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB IxJm² ISO 179/1eU Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB IxJm² IxJm² IxJm² IxJm² Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB IxJm² IxJm² IxJm² IxJm² IxJm² Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm NB IxJm² IxJ	IMPACT (1)			
Instrumented Dart Impact Total Energy, 23°C 75 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB Izod Impact, unnotched 80°10°3 -30°C NB Izod Impact, unnotched 80°10°3 -30°C NB Izod Impact, notched 80°10°3 -30°C S5 Izod Impact, notched 80°10°3 -30°C Izod Impact, notched 80°1	Izod Impact, notched, 23°C	824	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, unnotched 80°10'3 -23°C 65 Kl/m² ISO 180/1A Izod Impact, notched 80°10'3 -30°C 55 Kl/m² ISO 180/1A Izod Impact, notched 80°10'3 -30°C 55 Kl/m² ISO 180/1A Izod Impact, notched 80°10'3 sp=62mm 70 Kl/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10'3 sp=62mm 60 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 A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, -40°C to 95°C, xflow 6.7E-05 1/°C SO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 24°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 24°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, 24°C to 80°C, xflow 8.E-	Izod Impact, notched, -30°C	712	J/m	ASTM D256
Izod Impact, unnotched 80°10°3 ·30°C NB kJ/m² ISO 180/10 Izod Impact, notched 80°10°3 ·23°C 65 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 ·30°C 55 kJ/m² ISO 180/1A Charpy 23°C, V·notch Edgew 80°10°3 sp=62mm 70 kJ/m² ISO 179/1eA Charpy -30°C, V·notch 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 THERMAL (¹¹) Vicat Softening Temp, Rate A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, -40°C to 95°C, xflow 8.E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	Instrumented Dart Impact Total Energy, 23°C	75	J	ASTM D3763
Izod Impact, notched 80*10*3 +23°C 65 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 -30°C 55 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 70 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 60 kJ/m² ISO 179/1eU 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 A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, -40°C to 95°C, xflow 8.E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m²	ISO 180/1U
Isod Impact, notched 80*10*3 -30°C 55 KJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm 70 KJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 60 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 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 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 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 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 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 ISO 179/1eU Charpy -30°	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 70 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 60 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) Vicat Softening Temp, Rate A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, 40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 6.7E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 8.E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	Izod Impact, notched 80*10*3 +23°C	65	kJ/m²	ISO 180/1A
Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 60 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) Vicat Softening Temp, Rate A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, 40°C to 95°C, xflow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	Izod Impact, notched 80*10*3 -30°C	55	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ/m² ISO 179/1eU THERMAL (¹) Vicat Softening Temp, Rate A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, 40°C to 95°C, xflow 8.E-05 1/°C ASTM E831 CTE, 23°C to 80°C, xflow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	70	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 A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, -40°C to 95°C, xflow 8.E-05 1/°C ASTM E831 CTE, 23°C to 80°C, xflow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	60	kJ/m²	ISO 179/1eA
THERMAL (1) Vicat Softening Temp, Rate A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, 40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
Vicat Softening Temp, Rate A/50 138 °C ASTM D1525 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, 40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, 40°C to 95°C, xflow 8.E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, -40°C to 95°C, xflow 8.E-05 1/°C ASTM E831 CTE, 23°C to 80°C, xflow 6.7E-05 1/°C ISO 11359-2 ISO 11359-2	THERMAL (1)			
CTE, -40°C to 95°C, flow 6.7E-05 1/°C ASTM E831 CTE, 40°C to 95°C, xflow 8.E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	Vicat Softening Temp, Rate A/50	138	°C	ASTM D1525
CTE, 40°C to 95°C, xflow 8.E-05 1/°C ASTM E831 CTE, 23°C to 80°C, flow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	HDT, 1.82 MPa, 3.2mm, unannealed	120	°C	ASTM D648
CTE, 23°C to 80°C, flow 6.7E-05 1/°C ISO 11359-2 CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	CTE, -40°C to 95°C, flow	6.7E-05	1/°C	ASTM E831
CTE, 23°C to 80°C, xflow 8.E-05 1/°C ISO 11359-2	CTE, -40°C to 95°C, xflow	8.E-05	1/°C	ASTM E831
	CTE, 23°C to 80°C, flow	6.7E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C pass - IEC 60695-10-2	CTE, 23°C to 80°C, xflow	8.E-05	1/°C	ISO 11359-2
	Ball Pressure Test, 125°C +/- 2°C	pass	-	IEC 60695-10-2



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	138	°C	ISO 306
Vicat Softening Temp, Rate B/120	139	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	118	°C	ISO 75/Af
Relative Temp Index, Elec (2)	130	°C	UL 746B
Relative Temp Index, Mech w/impact (2)	120	°C	UL 746B
Relative Temp Index, Mech w/o impact (2)	130	°C	UL 746B
PHYSICAL (1)			
Specific Gravity	1.19	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm (3)	0.4 - 0.8	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	10	g/10 min	ASTM D1238
Density	1.19	g/cm³	ISO 1183
Water Absorption, (23°C/saturated)	0.13	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.09	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	9	cm³/10 min	ISO 1133
ELECTRICAL (1)			
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 3	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 1	≥1.5	mm	UL 746A
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E121562-256638	-	-
UL Recognized, 94V-2 Flame Class Rating	≥3	mm	UL 94
UL Recognized, 94HB Flame Class Rating	≥0.4	mm	UL 94
Glow Wire Ignitability Temperature, 3.0 mm	875	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 2.5 mm	875	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.5 mm	875	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.0 mm	875	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 0.8 mm	850	°C	IEC 60695-2-13
Glow Wire Flammability Index, 3.0 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 2.5 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.5 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.0 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 0.8 mm	825	°C	IEC 60695-2-12
INJECTION MOLDING (4)	120	0.5	
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative) Maximum Moisture Content	0.02	Hrs %	
Melt Temperature	295 – 315	°C	
Nozzle Temperature	290 – 310	°C	
Front - Zone 3 Temperature	295 – 315	°C	
Middle - Zone 2 Temperature	280 – 305	°C	
Rear - Zone 1 Temperature	270 – 295	°C	
Mold Temperature	70 – 95	°C	
Back Pressure	0.3 – 0.7	MPa	



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 - 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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