

LEXANTM COPOLYMER SLX1432

REGION ASIA

DESCRIPTION

Medium viscosity PC copolymer with enhanced UV stabilization and added release agent. Available in opaque colors. Typical minimum color tolerance limit is DE CMC < 1.0

TYPICAL PROPERTY VALUES

Revision 20241219

| MECHANICA. (*) MPa ASTM D638 Tensile Stress, brk, Type I, 50 mm/min 72 MPa ASTM D638 Tensile Strain, Jvd. Type I, 50 mm/min 1.0 % ASTM D638 Tensile Strain, Jvd. Type I, 50 mm/min 1.6 % ASTM D638 Tensile Strain, Jvd. Type I, 50 mm/min 126 % ASTM D638 Tensile Strain, Jvd. Type I, 50 mm/min 105 MPa ASTM D638 Tensile Strain, Jvd. 1, 3 mm/min, 50 mm span 105 MPa ASTM D790 Flexural Stress, yield, 50 mm/min 2490 MPa 105 527 Tensile Strain, Dealt, 50 mm/min 11 MPa 105 527 Tensile Strain, Dealt, 50 mm/min 12 % 105 527 Tensile Strain, Dealt, 50 mm/min 12 % 105 527 Tensile Strain, Dreak, 50 mm/min 123 % 105 527 Tensile Strain, Dreak, 50 mm/min 23 MPa 105 127 Tensile Strain, Dreak, 50 mm/min 10 MPa 105 127 Tensile Strain, Dreak, 50 mm/min 10 MPa 105 127 | PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|--|----------------|-------|--------------|
| Tensile Stress, brk, Yupe I, 50 mm/min 72 MPa ASTM D638 Tensile Strain, Johr, John John John 61 x ASTM D638 Tensile Modulus, 5 mm/min 2520 MPa ASTM D638 Flexural Stress, Yold, 1.3 mm/min, 50 mm span 105 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2490 MPa ASTM D790 Tensile Stress, yeld, 50 mm/min 71 MPa S0 527 Tensile Stress, break, 50 mm/min 71 MPa S0 527 Tensile Stress, break, 50 mm/min 123 X S0 527 Tensile Stress, break, 50 mm/min 2590 MPa S0 527 Tensile Stress, yeld, 2 mm/min 99 MPa S0 527 Flexural Stress, yeld, 2 mm/min 99 MPa S0 178 Flexural Modulus, 2 mm/min 40 ASTM D256 Electral Modulus, 2 mm/min 40 ASTM D256 Electral Modulus, 2 mm/min 60 MPa ASTM D256 Electral Modulus, 2 mm/min 80 MPa ASTM D256 Instrumorthin < | MECHANICAL (1) | | | |
| Tensile Strain, lyft, Type I, 50 mm/min 6.1 % ASTM D638 Tensile Strain, lyft, Type I, 50 mm/min 126 % ASTM D638 Tensile Modulus, 5 mm/min 2520 MPa ASTM D638 Flexural Modulus, 1.3 mm/min, 50 mm span 195 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2490 MPa ASTM D790 Tensile Stress, yleld, 50 mm/min 65 MPa 650 527 Tensile Stress, break, 50 mm/min 123 MPa 805 227 Tensile Strain, break, 50 mm/min 23 8 805 227 Tensile Modulus, 1 mm/min 2590 MPa 805 227 Tensile Modulus, 2 mm/min 9 MPa 805 227 Tensile Modulus, 2 mm/min 9 MPa 805 227 Tensile Modulus, 2 mm/min 19 MPa 805 227 Tensile Modulus, 2 mm/min 2590 MPa 805 227 Tensile Modulus, 2 mm/min 123 MPa 805 227 Tensile Modulus, 2 mm/min 123 MPa 805 227 Tensile | Tensile Stress, yld, Type I, 50 mm/min | 65 | MPa | ASTM D638 |
| Tensile Strain, brk, Type I, 50 mm/min 126 % ASTM D638 Tensile Modulus, 5 mm/min 2520 MPa ASTM D638 Flexural Modulus, 13 mm/min, 50 mm span 2490 MPa ASTM D790 Tensile Stress, yiel, 1.3 mm/min, 50 mm span 2490 MPa ASTM D790 Tensile Stress, break, 50 mm/min 65 MPa 60 527 Tensile Stress, break, 50 mm/min 123 % 60 527 Tensile Stress, break, 50 mm/min 2390 MPa 60 527 Tensile Modulus, 1 mm/min 99 MPa 60 527 Flexural Modulus, 2 mm/min 99 MPa 60 527 Flexural Modulus, 2 mm/min 99 MPa 60 527 Flexural Modulus, 2 mm/min 99 MPa 60 178 Flexural Modulus, 2 mm/min 99 MPa 60 178 Flexural Modulus, 2 mm/min 99 MPa ASTM D256 Izon Impact, notched, 23°C 86 J/m ASTM D256 Izon Impact, notched, 30°C 123 1/m ASTM D256 Izon Impact, not | Tensile Stress, brk, Type I, 50 mm/min | 72 | MPa | ASTM D638 |
| Bessile Modulus, 5 mm/min 2520 MPa ASTM D638 Flexural Stress, yld, 1.3 mm/min, 50 mm span 195 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2490 MPa ASTM D790 Tensile Stress, yled, 50 mm/min 65 MPa ISO 527 Tensile Stress, break, 50 mm/min 71 MPa ISO 527 Tensile Strain, break, 50 mm/min 123 % ISO 527 Tensile Strain, break, 50 mm/min 123 % ISO 527 Tensile Strain, break, 50 mm/min 123 % ISO 527 Tensile Strain, break, 50 mm/min 123 % ISO 527 Tensile Strain, break, 50 mm/min 129 MPa ISO 178 Becural Stress, yield, 2 mm/min 9 MPa ISO 178 Becural Stress, yield, 2 mm/min 9 MPa ISO 178 Becural Stress, yield, 2 mm/min 9 MPa ISO 178 Becural Modulus, 2 mm/min 4 S0 178 ISO 178 Itasural Modulus, 2 mm/min 4 MPa ISO 178 | Tensile Strain, yld, Type I, 50 mm/min | 6.1 | % | ASTM D638 |
| Flexural Stress, yield, 1.3 mm/min, 50 mm span 105 MPa ASTM D790 Flexural Modulus, 1.3 mm/min, 50 mm span 2490 MPa ASTM D790 Tensile Stress, yield, 50 mm/min 65 MPa ISO 527 Tensile Stress, Dend, 50 mm/min 58 80 527 SO 527 Tensile Strain, yield, 50 mm/min 23 % ISO 527 Tensile Strain, break, 50 mm/min 2390 MPa ISO 527 Flexural Modulus, 1 mm/min 2990 MPa ISO 178 Flexural Modulus, 2 mm/min 399 MPa SO 178 Flexural Modulus, 2 mm/min 860 J/m ASTM D256 Izod Impact, notched, 23°C 860 J/m ASTM D256 Izod Impact, notched, 23°C 860 J/m ASTM D256 Izod Impact, notched, 23°C 860 J/m ASTM D256 Izod Impact, notched 80°10°3 +23°C 86 J/m² SO 180/10 Roof Impact, notched 80°10°3 +23°C 86 J/m² SO 180/10 Charpy 3°C, Vnotch Edgew 80°10°3 spe Earm 15 J/m² SO 180/11 <td>Tensile Strain, brk, Type I, 50 mm/min</td> <td>126</td> <td>%</td> <td>ASTM D638</td> | Tensile Strain, brk, Type I, 50 mm/min | 126 | % | ASTM D638 |
| Elexaral Modulus, 1.3 mm/min, 50 mm span 2490 MPa ASTM D790 Tensile Stress, yield, 50 mm/min 55 MPa ISO 527 Tensile Stress, break, 50 mm/min 71 MPa ISO 527 Tensile Strain, break, 50 mm/min 123 % ISO 527 Tensile Strain, break, 50 mm/min 2590 MPa ISO 527 Flexural Modulus, 1 mm/min 299 MPa ISO 178 Elexural Modulus, 2 mm/min 80 Jm ASTM D256 Elexural Modulus, 2 mm/min 89 Jm ASTM D256 I Eval Inspect, notched, 23°C 86 Jm ASTM D256 Izod Impact, notched, 23°C 86 Jm ASTM D256 Izod Impact, notched, 30°C 123 Jm ASTM D256 Izod Impact, notched 90°10°3 +23°C 80 Jm ASTM D256 Izod Impact, notched 90°10°3 +23°C 9 MR Jm ASTM D361 Izod Impact, notched 90°10°3 +23°C 10 Km Jm S0 180/14 Izod Impact, notched 90°10°3 spe Ezmm 5 Km Jm </td <td>Tensile Modulus, 5 mm/min</td> <td>2520</td> <td>MPa</td> <td>ASTM D638</td> | Tensile Modulus, 5 mm/min | 2520 | MPa | ASTM D638 |
| Tensile Stress, yield, 50 mm/min 65 MPa SO 527 Tensile Stress, break, 50 mm/min 71 MPa SO 527 Tensile Strain, yield, 50 mm/min 5.8 % SO 527 Tensile Strain, yield, 50 mm/min 123 % SO 527 Tensile Strain, yield, 50 mm/min 123 MPa SO 527 Tensile Modulus, 1 mm/min 99 MPa SO 178 Flexural Stress, yield, 2 mm/min 99 MPa SO 178 Flexural Modulus, 2 mm/min 99 MPa SO 178 Impact, notched, 23°C 860 J/m ASTM D256 Izod Impact, notched, 30°C 123 J/m ASTM D256 Izod Impact, unotched 80°10°3 +23°C 86 J/m ASTM D256 Izod Impact, unotched 80°10°3 +23°C 88 J/m SO 180/10 Izod Impact, unotched 80°10°3 +23°C 89 J/m SO 180/10 Izod Impact, notched 80°10°3 +23°C 10 KJ/m² SO 180/10 Izod Impact, notched 80°10°3 spe 62mm 55 J/m² SO 190/10 I | Flexural Stress, yld, 1.3 mm/min, 50 mm span | 105 | MPa | ASTM D790 |
| Tensile Stress, break, 50 mm/min 71 MPa SO 527 Tensile Strain, yield, 50 mm/min 5.8 \$ SO 527 Tensile Strain, break, 50 mm/min 123 \$ SO 527 Tensile Modulus, 1 mm/min 2590 MPa SO 527 Flexural Modulus, 2 mm/min 99 MPa SO 178 Flexural Modulus, 2 mm/min 2990 MPa SO 178 MPACT ⁽¹⁾ ************************************ | Flexural Modulus, 1.3 mm/min, 50 mm span | 2490 | MPa | ASTM D790 |
| Tensile Strain, yield, 50 mm/min 5.8 % ISO 527 Tensile Strain, break, 50 mm/min 123 % ISO 527 Tensile Modulus, 1 mm/min 2590 MPa ISO 527 Flexural Stress, yield, 2 mm/min 99 MPa ISO 178 Impact, 1 Modulus, 2 mm/min 399 MPa ISO 178 Impact, 1 MmAct ⁽¹⁾ W ASTM D256 Ized Impact, notched, 23°C 860 1/m ASTM D256 Ized Impact, notched, 30°C 123 J/m ASTM D256 Ized Impact, notched 80°10°3 +23°C 76 J ASTM D256 Ized Impact, notched 80°10°3 +23°C 86 J/m² ISO 180/10 Ized Impact, notched 80°10°3 +23°C 76 J/m² ISO 180/10 Ized Impact, notched 80°10°3 +23°C 76 J/m² ISO 180/10 Ized Impact, notched 80°10°3 +23°C 10 J/m² ISO 180/10 Ized Impact, notched 80°10°3 +23°C 10 J/m² ISO 180/10 Ized Impact, notched 80°10°3 +23°C 30 Impact (a) Impact (a) Impact (a) | Tensile Stress, yield, 50 mm/min | 65 | MPa | ISO 527 |
| Tensile Strain, break, 50 mm/min 123 % SO 527 Tensile Modulus, 1 mm/min 2590 MPa SO 527 Flexural Stress, yield, 2 mm/min 99 MPa 150 178 Impact, 10 Modulus, 2 mm/min 2390 MPa 150 178 Impact, 10 Modulus, 2 mm/min 860 J/m ASTM D256 Izod Impact, notched, 30°C 23 J/m ASTM D256 Izod Impact, notched, 30°C 123 J/m ASTM D256 Izod Impact, notched 80°10°3 +23°C 76 J/m ASTM D3763 Izod Impact, notched 80°10°3 +23°C 88 J/m² 150 180/14 Izod Impact, notched 80°10°3 +23°C 10 J/m² 150 180/14 Izod Impact, notched 80°10°3 +23°C 10 J/m² 150 180/14 Izod Impact, notched 80°10°3 +23°C 10 J/m² 150 180/14 Izod Impact, notched 80°10°3 +23°C 15 J/m² 150 180/14 Izod Impact, notched 80°10°3 +23°C 15 J/m² 150 180/14 Izod Impact, notched 80°10°3 +23°C 15 35 180/14 35 180/14< | Tensile Stress, break, 50 mm/min | 71 | MPa | ISO 527 |
| Tensile Modulus, 1 mm/min 2590 MPa ISO 527 Flexural Stress, yield, 2 mm/min 99 MPa ISO 178 IMPACT ⁽¹⁾ USO 178 IMPACT IMPACT IMPACT ISO 178 IMPACT IMPA | Tensile Strain, yield, 50 mm/min | 5.8 | % | ISO 527 |
| Flexural Stress, yield, 2 mm/min 99 MPa ISO 178 Flexural Modulus, 2 mm/min 2390 MPa ISO 178 IMPACT (**) USD 178 IMPACT (**) USD 178 Izod Impact, notched, 23°C 860 J/m ASTM D256 Izod Impact, notched, 30°C 123 J/m ASTM D256 Istrumented Dart Impact Total Energy, 23°C 76 J/m² SO 180/10 Izod Impact, notched 80°10°3 +23°C 88 J/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C 10 J/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C 10 J/m² ISO 180/10 Izod Impact, notched 80°10°3 +23°C 10 J/m² ISO 180/10 Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 15 J/m² ISO 180/10 Charpy 23°C, U-notch Edgew 80°10°3 sp=62mm 18 B I/m² ISO 179/10 Charpy 23°C, U-notch Edgew 80°10°3 sp=62mm 13 2 C ASTM D515 HDT, 0.45 MPa, 3.2 mm, unannealed 132 2 C ASTM D648 HDT, 0.45 MPa, 3 | Tensile Strain, break, 50 mm/min | 123 | % | ISO 527 |
| Plesural Modulus, 2 mm/min 2390 MPa ISO 178 IMPACT IMP | Tensile Modulus, 1 mm/min | 2590 | MPa | ISO 527 |
| IMPACT ⁽¹⁾ Izod Impact, notched, 23°C 860 J/m ASTM D256 Izod Impact, notched, -30°C 123 J/m ASTM D256 Instrumented Dart Impact Total Energy, 23°C 76 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 -30°C 10 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 65 kJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 15 kJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm NB RD xJ/m² XSIM D6 Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm NB RD xJ/m² XSIM D6 Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 13° xSIM D6 XSIM D6 HDT, 0.45 MPa, 3.2 mm, unannealed | Flexural Stress, yield, 2 mm/min | 99 | MPa | ISO 178 |
| Rod Impact, notched, 23°C 860 J/m ASTM D256 Izod Impact, notched, -30°C 123 J/m ASTM D256 Instrumented Dart Impact Total Energy, 23°C 76 J ASTM D3763 Izod Impact, unnotched 80°10°3 + 23°C NB I/m² ISO 180/1U Izod Impact, notched 80°10°3 + 23°C 65 I/m² ISO 180/1A Izod Impact, notched 80°10°3 - 30°C 10 I/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 65 I/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 15 I/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB I/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB I/m² ASTM D1525 THERMAL I'' I/m² C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 120 °C ASTM E831 CTE, 40°C to 40°C, filow 6.2E-05 1/°C ASTM E831 CTE, 40°C to 40°C, filow 6.2E-05 | Flexural Modulus, 2 mm/min | 2390 | MPa | ISO 178 |
| Izod Impact, notched, -30°C 123 J/m ASTM D256 Instrumented Dart Impact Total Energy, 23°C 76 J ASTM D3763 Izod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/14 Izod Impact, notched 80°10°3 +23°C 65 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 10 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 65 kJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 15 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 15 kJ/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm 13 °C ASTM D1525 THERMAL (") ************************************ | IMPACT (1) | | | |
| Instrumented Dark Impact Total Energy, 23°C 76 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 65 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 10 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 65 kJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 15 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 18 C° ASTM D1525 THERMAL '' V V V SO 179/1eA Unnotch Edgew 80°10°3 sp=62mm 137 ° C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 137 ° C ASTM D1525 HDT, 1.82 MPa, 3.2 mm, unannealed 120 ° C ASTM D648 CTE, 40°C to 40°C, flow 6.2E-05 1/°C ASTM EB31 CTE, 40°C to 40°C, flow 6.2E-05 1/°C SO 11359-2 | Izod Impact, notched, 23°C | 860 | J/m | ASTM D256 |
| Izod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/1U Izod Impact, notched 80°10°3 +23°C 65 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 10 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 65 kJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 15 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 179/1eA 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 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² KJ/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² KJ/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm 137 °C ASTM D1525 ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 120 °C ASTM D648 ASTM D648 | Izod Impact, notched, -30°C | 123 | J/m | ASTM D256 |
| Izod Impact, notched 80°10°3 +23°C 65 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 10 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 65 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 15 kJ/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/1eA THERMAL ⁽¹⁾ Vicat Softening Temp, Rate B/50 137 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ISO 11359-2 CTE, 40°C to 40°C, flow 6.2E-05 1/°C ISO 11359-2 CTE, 40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 | Instrumented Dart Impact Total Energy, 23°C | 76 | J | ASTM D3763 |
| Izod Impact, notched 80°10°3 -30°C 10 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 65 kJ/m² ISO 179/1eA Charpy 23°C, U-notch Edgew 80°10°3 sp=62mm 15 kJ/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/1eU THERMAL (¹) Vicat Softening Temp, Rate B/50 137 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 120 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM E831 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 137 °C ISO 1036 | Izod Impact, unnotched 80*10*3 +23°C | NB | kJ/m² | ISO 180/1U |
| Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 65 kJ/m² ISO 179/1eA Charpy 30°C, V-notch Edgew 80°10°3 sp=62mm 15 kJ/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/1eU THERMAL (¹) Vicat Softening Temp, Rate B/50 137 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-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 15 kJ/m² ISO 179/1eA Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ/m² ISO 179/1eU THERMAL (¹) Vicat Softening Temp, Rate B/50 137 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C IN 1359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 137 °C ISO 306 | Izod Impact, notched 80*10*3 -30°C | 10 | 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 B/50 137 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 | Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm | 65 | kJ/m² | ISO 179/1eA |
| THERMAL (¹¹) Vicat Softening Temp, Rate B/50 137 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT, 1.82 MPa, 3.2 mm, unannealed 120 °C ASTM D648 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 137 °C ISO 306 | Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm | 15 | kJ/m² | ISO 179/1eA |
| Vicat Softening Temp, Rate B/50 137 °C ASTM D1525 HDT, 0.45 MPa, 3.2 mm, unannealed 132 °C ASTM D648 HDT, 1.82 MPa, 3.2mm, unannealed 120 °C ASTM D648 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 137 °C ISO 306 | Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm | NB | kJ/m² | ISO 179/1eU |
| HDT, 0.45 MPa, 3.2 mm, unannealed HDT, 1.82 MPa, 3.2 mm, unannealed 120 °C ASTM D648 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 1/°C ISO 1359-2 Vicat Softening Temp, Rate B/50 | THERMAL (1) | | | |
| HDT, 1.82 MPa, 3.2mm, unannealed 120 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM D648 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C 1/°C | Vicat Softening Temp, Rate B/50 | 137 | °C | ASTM D1525 |
| CTE, -40°C to 40°C, flow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 137 °C ISO 306 | HDT, 0.45 MPa, 3.2 mm, unannealed | 132 | °C | ASTM D648 |
| CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ASTM E831 CTE, -40°C to 40°C, flow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 137 °C ISO 306 | HDT, 1.82 MPa, 3.2mm, unannealed | 120 | °C | ASTM D648 |
| CTE, -40°C to 40°C, flow 6.2E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 137 °C ISO 306 | CTE, -40°C to 40°C, flow | 6.2E-05 | 1/°C | ASTM E831 |
| CTE, -40°C to 40°C, xflow 6.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 137 °C ISO 306 | CTE, -40°C to 40°C, xflow | 6.2E-05 | 1/°C | ASTM E831 |
| Vicat Softening Temp, Rate B/50 137 °C ISO 306 | CTE, -40°C to 40°C, flow | 6.2E-05 | 1/°C | ISO 11359-2 |
| 5 · p. · · · p. | CTE, -40°C to 40°C, xflow | 6.2E-05 | 1/°C | ISO 11359-2 |
| Vicat Softening Temp, Rate B/120 140 °C ISO 306 | Vicat Softening Temp, Rate B/50 | 137 | °C | ISO 306 |
| | Vicat Softening Temp, Rate B/120 | 140 | °C | ISO 306 |



| 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/ Impact ⁽²⁾ 80 °C UL 746B PHYSICAL ⁽²⁾ Expedific Gravity 1.22 5 ASTM D792 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 0.6–0.8 %0 method ASTM D1238 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 1.22 y/ Omina ASTM D1238 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 1.22 y/ Omina ASTM D1238 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 1.22 y/ Omina ASTM D1238 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 4.22 y/ Omina ASTM D1238 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 4.22 y/ Omina ASTM D1238 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 4.22 y/ Omina ASTM D1238 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 5.0 2.2 Mol Sarate, 1.2 mm ⁽³⁾ 4.2 mm ⁽³⁾ 4.2 mm ⁽³⁾ 4.2 mm ⁽³⁾ <th co<="" th=""><th></th><th></th><th></th><th></th></th> | <th></th> <th></th> <th></th> <th></th> | | | | |
|--|--|-------------------|------------|--------------|--|
| 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/ Impact ⁽²⁾ 80 °C UL 746B PHYSICAL ⁽¹⁾ Februsia Californity 3 ASTM D792 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 1.22 - ASTM D792 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 0.6 - 0.8 % ASIM D792 Mold Shrinkage, flow, 3.2 mm ⁽³⁾ 10 9/10 min ASTM D1238 Meth Flow Rate, 300°C/1.2 kg 1.23 9/10 min ASTM D1238 Water Absorption, (23°C/ Saturated) 0.1 3 50 62 Molisture Absorption (23°C / 50x RH) 0.1 3 50 62 Melisture Absorption (23°C / 50x RH) 0.1 3 9 10 30 Molisture Absorption (23°C / 50x RH) 1.2 1 10 20 10 30 10 30 10 30 10 30 10 30 10 30 10 30 10 30 10 30 10 30 10 30 10 30 10 30 | PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS | |
| Relative Temp Index, Mech w/ Impact (2) 80 "C UL 7468 Relative Temp Index, Mech w/ o impact (2) 80 "C UL 7468 PHYSICAL (1) Specific Gravity 1.22 - ASTM D792 Mold Shrinkage, flow, 3.2 mm (3) 6.6 - 0.8 9/10 min ASTM D738 Melt Flow Rate, 300°C/1.2 kgf 1.23 g/m² MSD 1183 Melt Flow Rate, 300°C/1.2 kgf 0.3 3 60 -2.1 Molty Lang Assorption, (23°C/ 50% RH) 0.1 3 60 -2.1 Melt Volume Rate, MVR at 30°C/ 1.2 kg 0.1 3 60 -2.1 Melt Volume Rate, MVR at 30°C/ 1.2 kg 1.2 mm U. 90 -2.1 U. Yellow Card Link E207780-102799845 * * 1.0 U. Yellow Card Link E207780-102799845 * * * 1.0 U. Yellow Card Link E207780-102799845 * * * * * U. Yellow Card Link * * | HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 118 | °C | ISO 75/Af | |
| Relative Temp Index, Mechay Index (1) PHYSICAL (1) Specific Gravity 1,22 So - 0.8 So - 0.8 So - 0.8 So Index (1) So So Ind | Relative Temp Index, Elec ⁽²⁾ | 80 | °C | UL 746B | |
| PHYSICAL (¹¹) Specific Gravity 1.22 - 0 ATM D792 Mold Shrinkage, flow, 3.2 mm (³) 06 – 0.8 \$ ABIC method Melt Flow Rate, 300°C/1.2 kgf 10 3/10 min ATM D1238 Density 1.23 3/20 min 150 183 Molsture Absorption (23°C/ 50% RH) 1.2 3/20 min 150 62-1 Molsture Absorption (23°C/ 50% RH) 0.1 \$ 100 min 150 62-1 Melt Volume Rate, MVR at 300°C/ 1.2 kg 9 207 780 102799845 5 150 62-1 ELME CHARACTERISTICS (²) 2 150 780 102799845 1 1 1 Uk Recognized, 94HB Flame Class Rating 15 20 780 102799845 1 | Relative Temp Index, Mech w/impact (2) | 80 | °C | UL 746B | |
| Specific Gravity1.22 | Relative Temp Index, Mech w/o impact (2) | 80 | °C | UL 746B | |
| Mold Shrinkage, flow, 3.2 mm (³) 0.6 - 0.8 \$ SABIC method Melt Flow Rate, 300°C/1.2 kgf 10 g/10 min ASTM D1238 Density 1.23 g/cm³ ISO 1183 Water Absorption, (23°C/saturated) 0.3 \$ SC 62-1 Moisture Absorption (23°C/ 50% RH) 0.1 \$ ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 9 grow³ 10 min ISO 1133 FLAME CHARACTERISTICS (°) UL Yellow Card Link £ 207780-102799845 ¬ ¬ UL Recognized, 94HB Flame Class Rating 120 mm UL 94 UNINCETION MOLDING (°) TUS TUS TUS Drying Time 3 - 4 Hrs TUS TUS Maximum Moisture Content 48 Hrs TUS | PHYSICAL (1) | | | | |
| Melt Flow Rate, 300°C/1.2 kgf 10 g/10 min ATM D1238 Density 1.23 g/cm³ ISO 1183 Water Absorption (23°C/ 50% RH) 0.3 % 50 62-1 Melt Volume Rate, MVR at 300°C/1.2 kg 9 m³/l 0 min \$50 62-1 FLAME CHARACTERISTICS (²) U. Yellow Card Link £07780-102799845 ° ° ** UL Recognized, 94HB Flame Class Rating 15 mm U. 94 ** Drying Temperature 120 °C ** ** Drying Time (Cumulative) 3-4 Hrs ** ** ** ** Maximum Moisture Content 95-315 °C ** | Specific Gravity | 1.22 | - | ASTM D792 | |
| Density 1.23 g/cm³ ISO 1183 Water Absorption, (23°C/saturated) 0.3 % ISO 62-1 Moisture Absorption (23°C/50 RH) 0.1 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 9 cm³/10 min ISO 1133 FLAME CHARACTERISTICS (2) Use Plow Card Link E207780-102799845 - - - UL Recognized, 94HB Flame Class Rating 1.5 mm UL 94 - INJECTION MOLDING (4) ** ** - - - - Drying Time 3 - 4 Hrs -< | Mold Shrinkage, flow, 3.2 mm (3) | 0.6 - 0.8 | % | SABIC method | |
| Water Absorption, (23°C/saturated) 0.3 % 50 62-1 Moisture Absorption (23°C / 50% RH) 0.1 % 50 62-1 Melt Volume Rate, MVR at 300°C / 1.2 kg 9 cm²/10 min ISO 1133 FLAME CHARACTERISTICS (2) UL Yellow Card Link E207780-102799845 - - - UL Recognized, 94HB Flame Class Rating 1.5 mm UL 94 - INJECTION MOLDING (4) C - | Melt Flow Rate, 300°C/1.2 kgf | 10 | g/10 min | ASTM D1238 | |
| Moisture Absorption (23° / 50% RH) 0.1 % 150 62 Melt Volume Rate, MVR at 300° / 1.2 kg 9 cm³/10 min 150 1133 FLAME CHARACTERISTICS (2) UL Yellow Card Link E207780-102799845 - - UL Recognized, 94HB Flame Class Rating 15 mm UL 94 INJECTION MOLDING (4) Typing Temperature 120 °C - <th>Density</th> <th>1.23</th> <th>g/cm³</th> <th>ISO 1183</th> | Density | 1.23 | g/cm³ | ISO 1183 | |
| Melt Volume Rate, MVR at 300°C/1.2 kg FLAME CHARACTERISTICS UL Yellow Card Link LI Yellow Card Link UL Recognized, 94HB Flame Class Rating 1.5 1.5 1.0 1.0 1.0 1.0 1.0 1.0 | Water Absorption, (23°C/saturated) | 0.3 | % | ISO 62-1 | |
| HAME CHARACTERISTICS | Moisture Absorption (23°C / 50% RH) | 0.1 | % | ISO 62 | |
| UL Recognized, 94HB Flame Class Rating 15. 15. 16. 16. 16. 16. 17. 16. | Melt Volume Rate, MVR at 300°C/1.2 kg | 9 | cm³/10 min | ISO 1133 | |
| NUL Recognized, 94HB Flame Class Rating 1.5 mm VL 94 VL 94 NUECTION MOLDING (4) C C C C C C C C C C C C C C C C C | FLAME CHARACTERISTICS (2) | | | | |
| INJECTION MOLDING (4) Drying Temperature 120 °C Drying Time (Cumulative) 48 Hrs Maximum Moisture Content 295 – 315 °C Nozzle Temperature 290 – 310 °C Front - Zone 3 Temperature 295 – 315 °C Middle - Zone 2 Temperature 280 – 305 °C Mold Temperature 270 – 295 °C Mold Temperature 270 – 295 °C Mold Temperature 30.3 – 0.7 °C Mold Temperature 30.3 °C Mold Tempera | UL Yellow Card Link | E207780-102799845 | - | | |
| Drying Temperature120°CDrying Time3 - 4HrsDrying Time (Cumulative)48HrsMaximum Moisture Content.0.2%Melt Temperature295 - 315°CNozzle Temperature290 - 310°CFront - Zone 3 Temperature295 - 315°CMiddle - Zone 2 Temperature280 - 305°CRear - Zone 1 Temperature270 - 295°CMold Temperature70 - 95°CBack Pressure0.3 - 0.7MPaSrew Speed40 - 70rpm | UL Recognized, 94HB Flame Class Rating | 1.5 | mm | UL 94 | |
| Drying Time (Cumulative) 48 Hrs Maximum Moisture Content 0.002 % Melt Temperature 299 – 315 °C Front - Zone 3 Temperature 299 – 315 °C Middle - Zone 2 Temperature 290 – 305 °C Modd Temperature 270 – 295 °C Mold Temperature 700 – 95 °C Back Pressure 10.3 – 0.7 MPa Screw Speed 40 – 70 pm — pm | INJECTION MOLDING (4) | | | | |
| Drying Time (Cumulative)48HrsMaximum Moisture Content0.02%Melt Temperature295 – 315°CNozzle Temperature290 – 310°CFront - Zone 3 Temperature295 – 315°CMiddle - Zone 2 Temperature280 – 305°CRear - Zone 1 Temperature270 – 295°CMold Temperature70 – 95°CBack Pressure0.3 – 0.7MPaScrew Speed40 – 70rpm | Drying Temperature | 120 | °C | | |
| Maximum Moisture Content 0.02 % 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 Screw Speed 40 – 70 rpm | Drying Time | 3 – 4 | 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 Screw Speed 40 – 70 rpm | Drying Time (Cumulative) | 48 | Hrs | | |
| 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 Screw Speed 40 – 70 rpm | Maximum Moisture Content | 0.02 | % | | |
| 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 Screw Speed 40 – 70 rpm | Melt 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 Screw Speed 40 – 70 rpm | Nozzle Temperature | 290 – 310 | °C | | |
| Rear - Zone 1 Temperature 270 – 295 °C Mold Temperature 70 – 95 °C Back Pressure 0.3 – 0.7 MPa Screw Speed 40 – 70 rpm | Front - Zone 3 Temperature | 295 – 315 | °C | | |
| Mold Temperature 70 – 95 °C Back Pressure 0.3 – 0.7 MPa Screw Speed 40 – 70 rpm | Middle - Zone 2 Temperature | 280 – 305 | °C | | |
| Back Pressure 0.3 – 0.7 MPa Screw Speed 40 – 70 rpm | Rear - Zone 1 Temperature | 270 – 295 | °C | | |
| Screw Speed 40 – 70 rpm | Mold Temperature | 70 – 95 | °C | | |
| | Back Pressure | 0.3 – 0.7 | MPa | | |
| | Screw Speed | | rpm | | |
| | Shot to Cylinder Size | 40 – 60 | % | | |
| Vent Depth 0.025 – 0.076 mm | 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.

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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