

Cycoloy* Resin XCY620

Americas: COMMERCIAL

PC+ ABS Automotive applications, High Impact and High Flow, ductility at low temperature, excellent properties retention after Hydrolytic and Heat Aging

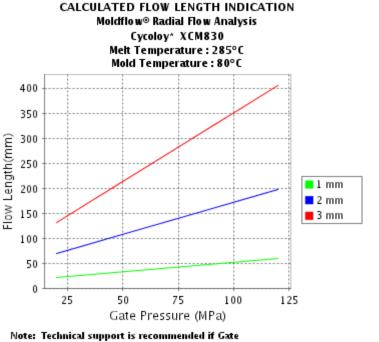
Property

NECHANICAL Value Unit Standard Tensile Stress, jvld, Type I, 50 mm/min 55 MPa ASTM D 638 Tensile Stress, brk, Type I, 50 mm/min 4.7 % ASTM D 638 Tensile Strain, jvld, Type I, 50 mm/min 115 % ASTM D 638 Tensile Modulus, 5 mm/min 2300 MPa ASTM D 638 Flexural Stress, yild, 13 mm/min, 50 mm span 2300 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2300 MPa ASTM D 790 Tensile Stress, yild, 50 mm/min 54 MPa ISO 527 Tensile Stress, jeld, 50 mm/min 4.5 % ISO 527 Tensile Stress, jeld, 50 mm/min 4.5 % ISO 527 Tensile Modulus, 1 mm/min 2200 MPa ISO 527 Tensile Modulus, 1 mm/min 2200 MPa ISO 178 Flexural Modulus, 2 mm/min 2200 MPa ISO 178 Tensile Modulus, 2 mm/min 230 MPa ISO 178 Tensile Stress, yield, 50 mm/min 2200 MPa ISO 178	TYPICAL PROPERTIES ⁽¹⁾			
Tensile Stress, brk, Type I, 50 mm/min 52 MPa ASTM D 638 Tensile Strain, Jrk, Type I, 50 mm/min 4.7 % ASTM D 638 Tensile Strain, Jrk, Type I, 50 mm/min 115 % ASTM D 638 Tensile Modulus, 5 mm/min 2300 MPa ASTM D 638 Flexural Stress, yiel, 13 mm/min, 50 mm span 2300 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2300 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2300 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 51 MPa ISO 527 Tensile Stress, jetal, 50 mm/min 115 % ISO 527 Tensile Modulus, 2 mm/min 115 % ISO 527 Tensile Modulus, 2 mm/min 83 MPa ISO 527 Tensile Modulus, 2 mm/min 83 MPa ISO 527 Tensile Modulus, 2 mm/min 2200 MPa ISO 178 Flexural Modulus, 2 mm/min 2200 MPa ISO 178 Teaval Modulus, 2 mm/min 2200 MPa ISO 178	MECHANICAL	Value	Unit	Standard
Tensile Strain, yld, Type I, 50 mm/min 4.7 % ASTM D 638 Tensile Strain, brk, Type I, 50 mm/min 115 % ASTM D 638 Fensile Modulus, 5 mm/min 2300 MPa ASTM D 638 Flexural Stress, yld, 1.3 mm/min, 50 mm span 89 MPa ASTM D 790 Flexural Modulus, 1.1 mm/min, 50 mm span 54 MPa ISO 527 Tensile Stress, break, 50 mm/min 51 MPa ISO 527 Tensile Strain, yield, 50 mm/min 4.5 % ISO 527 Tensile Strain, yield, 50 mm/min 115 % ISO 527 Tensile Modulus, 1 mm/min 2200 MPa ISO 527 Tensile Modulus, 2 mm/min 83 MPa ISO 178 Flexural Stress, yield, 2 mm/min 83 MPa ISO 178 IMPACT Vatue Unit Standard Izod Impact, notched, 30°C 640 J/m ASTM D 256 Iasturenetid Impact Total Energy, 30°C 70 J ASTM D 3763 Iasturenetid Impact Total Energy, 30°C 70 K.l/m² ISO 178/14A <td>Tensile Stress, yld, Type I, 50 mm/min</td> <td>55</td> <td>MPa</td> <td>ASTM D 638</td>	Tensile Stress, yld, Type I, 50 mm/min	55	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min 115 % ASTM D 638 Tensile Modulus, 5 mm/min 2300 MPa ASTM D 638 Flexural Stress, yield, 1.3 mm/min, 50 mm span 2300 MPa ASTM D 790 Flexural Stress, yield, 50 mm/min 54 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 51 MPa ISO 527 Tensile Strain, yield, 50 mm/min 4.5 % ISO 527 Tensile Strain, break, 50 mm/min 4.5 % ISO 527 Tensile Strain, break, 50 mm/min 4.5 % ISO 527 Tensile Modulus, 1 mm/min 2200 MPa ISO 527 Tensile Modulus, 1 mm/min 83 MPa ISO 527 Tensile Strain, break, 50 mm/min 83 MPa ISO 527 Tensile Modulus, 2 mm/min 83 MPa ISO 527 Tensile Modulus, 2 mm/min 83 MPa ISO 527 Tensile Modulus, 2 mm/min 83 MPa ISO 178 Texural Modulus, 2 mm/min 2200 MPa ISO 178 Texural Mo	Tensile Stress, brk, Type I, 50 mm/min	52	MPa	ASTM D 638
Tensile Modulus, 5 mm/min 2300 MPa ASTM D 638 Flexural Stress, yiel, 1.3 mm/min, 50 mm span 89 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2300 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2300 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 51 MPa ISO 527 Tensile Stress, yield, 50 mm/min 4.5 % ISO 527 Tensile Strain, yield, 50 mm/min 115 % ISO 527 Tensile Modulus, 1 mm/min 2200 MPa ISO 527 Tensile Modulus, 2 mm/min 2200 MPa ISO 527 Tensile Modulus, 2 mm/min 2200 MPa ISO 178 Flexural Modulus, 2 mm/min 2200 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 640 J/m ASTM D 3763 Instrumented Impact Total Energy, 30°C 70 J ASTM D 3763 Izod Impact, notched 80*10°3 -30°C 70 KJ/m² ISO 179/16A <t< td=""><td>Tensile Strain, yld, Type I, 50 mm/min</td><td>4.7</td><td>%</td><td>ASTM D 638</td></t<>	Tensile Strain, yld, Type I, 50 mm/min	4.7	%	ASTM D 638
Flexural Stress, yid, 1.3 mm/min, 50 mm span 89 MPa ASTM D 790 Flexural Modulus, 1.3 mm/min, 50 mm span 2300 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 54 MPa ISO 527 Tensile Stress, break, 50 mm/min 51 MPa ISO 527 Tensile Stress, break, 50 mm/min 4.5 % ISO 527 Tensile Strain, yield, 50 mm/min 115 % ISO 527 Tensile Modulus, 1 mm/min 2200 MPa ISO 527 Flexural Stress, yield, 2 mm/min 83 MPa ISO 178 Flexural Modulus, 1 mm/min 2200 MPa ISO 178 Flexural Modulus, 1 mm/min 83 MPa ISO 178 MPACT Value Unit Standard Izod Impact, notched, 23°C 640 Jm ASTM D 256 Instrumented Impact Total Energy, 23°C 70 J ASTM D 2763 Instrumented Impact Total Energy, 30°C 70 J ASTM D 3763 Izod Impact, notched 80°10°3 sp=62mm 70 kJ/m² ISO 180/1A	Tensile Strain, brk, Type I, 50 mm/min	115	%	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span 2300 MPa ASTM D 790 Tensile Stress, yield, 50 mm/min 54 MPa ISO 527 Tensile Stress, break, 50 mm/min 4.5 % ISO 527 Tensile Strain, yield, 50 mm/min 4.5 % ISO 527 Tensile Strain, break, 50 mm/min 115 % ISO 527 Tensile Modulus, 1 mm/min 2200 MPa ISO 527 Flexural Modulus, 2 mm/min 83 MPa ISO 178 Flexural Modulus, 2 mm/min 2200 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 39°C 640 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Instrumented Impact Total Energy, 30°C 70 J ASTM D 3763 Izod Impact, notched 80°10°3 +23°C 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 45 kJ/m² ISO 179/1eA	Tensile Modulus, 5 mm/min	2300	MPa	ASTM D 638
Tensile Stress, yield, 50 mm/min 54 MPa ISO 527 Tensile Stress, break, 50 mm/min 4.5 % ISO 527 Tensile Strain, yield, 50 mm/min 4.5 % ISO 527 Tensile Strain, break, 50 mm/min 115 % ISO 527 Tensile Strain, break, 50 mm/min 2200 MPa ISO 527 Tensile Strain, break, 50 mm/min 2200 MPa ISO 527 Tensile Strain, break, 50 mm/min 2200 MPa ISO 527 Flexural Modulus, 1 mm/min 2200 MPa ISO 178 IMPACT Value Unit Standard Izod Inpact, notched, 23°C 640 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Instrumented Impact Total Energy, 30°C 70 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 70 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 70 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 70 KJ/m² ISO 180/1A	Flexural Stress, yld, 1.3 mm/min, 50 mm span	89	MPa	ASTM D 790
Tensile Stress, break, 50 mm/min 51 MPa ISO 527 Tensile Strain, yield, 50 mm/min 4.5 % ISO 527 Tensile Modulus, 1 mm/min 115 % ISO 527 Tensile Modulus, 1 mm/min 2200 MPa ISO 527 Flexural Stress, yield, 2 mm/min 83 MPa ISO 178 Flexural Modulus, 2 mm/min 83 MPa ISO 178 IMPACT Value Unit Standard Zool Inpact, notched, 23°C 640 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 660 J ASTM D 3763 Instrumented Impact Total Energy, 33°C 70 KJ/m2 ISO 180/1A Zod Impact, notched 80°10°3 +23°C 70 KJ/m2 ISO 180/1A Zod Impact, notched 80°10°3 +23°C 70 KJ/m2 ISO 180/1A Zod Impact, notched 80°10°3 +23°C 70 KJ/m2 ISO 180/1A Zod Impact, notched 80°10°3 +23°C 70 KJ/m2 ISO 180/1A Zod Impact, notched 80°10°3 +23°C 70 KJ/m2 ISO 180/1A	Flexural Modulus, 1.3 mm/min, 50 mm span	2300	MPa	ASTM D 790
Tensile Strain, yield, 50 mm/min 4.5 % ISO 527 Tensile Strain, break, 50 mm/min 115 % ISO 527 Tensile Modulus, 1 mm/min 200 MPa ISO 527 Flexural Stress, yield, 2 mm/min 83 MPa ISO 178 Flexural Modulus, 2 mm/min 2200 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 640 J/m ASTM D 256 Isot Impact, notched, -30°C 480 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Isot Impact, notched 80°10°3 +23°C 70 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 70 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 70 kJ/m² ISO 179/1eA Charpy 30°C, V-notch Edgew 80°10°3 sp=62mm 70 kJ/m² ISO 179/1eA THERMAL Value Unit Standard 100	Tensile Stress, yield, 50 mm/min	54	MPa	ISO 527
Tensile Strain, break, 50 mm/min 115 % ISO 527 Tensile Modulus, 1 mm/min 2200 MPa ISO 527 Flexural Stress, yield, 2 mm/min 83 MPa ISO 178 Flexural Modulus, 2 mm/min 2200 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 640 J/m ASTM D 256 Instrumented Impact, notched, -30°C 480 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Instrumented Impact, notched 80°10°3 -30°C 70 J ASTM D 3763 Izod Impact, notched 80°10°3 -30°C 70 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 45 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 sp=62mm 70 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 45 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 <td< td=""><td>Tensile Stress, break, 50 mm/min</td><td>51</td><td>MPa</td><td>ISO 527</td></td<>	Tensile Stress, break, 50 mm/min	51	MPa	ISO 527
Tensile Modulus, 1 mm/min 2200 MPa ISO 527 Flexural Stress, yield, 2 mm/min 83 MPa ISO 178 Flexural Modulus, 2 mm/min 2200 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 640 J/m ASTM D 256 Izod Impact, notched, 30°C 480 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Instrumented Impact Total Energy, 30°C 70 J ASTM D 3763 Izod Impact, notched 80°10°3 + 23°C 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 70 kJ/m² ISO 179/1eA Charpy 30°C, V-notch Edgew 80°10°3 sp=62mm 45 kJ/m² ISO 179/1eA Charpy 30°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 70 c ASTM D 1525 THETMAL Value Unit <	Tensile Strain, yield, 50 mm/min	4.5	%	ISO 527
Flexural Stress, yield, 2 mm/min 83 MPa ISO 178 Flexural Modulus, 2 mm/min 2200 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 640 J/m ASTM D 256 Izod Impact, notched, -30°C 440 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Instrumented Impact Total Energy, -30°C 70 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 70 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 70 KJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 70 KJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 45 KJ/m² ISO 179/1eA Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 8.E-05 1/°C I	Tensile Strain, break, 50 mm/min	115	%	ISO 527
Flexural Modulus, 2 mm/min 2200 MPa ISO 178 IMPACT Value Unit Standard Izod Impact, notched, 23°C 640 J/m ASTM D 256 Izod Impact, notched, -30°C 480 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Izod Impact, notched 80*10*3 +23°C 70 J ASTM D 3763 Izod Impact, notched 80*10*3 +23°C 70 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 -30°C 45 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 45 kJ/m² ISO 179/1eA Charpy 30°C, V-notch Edgew 80*10*3 sp=62mm 45 kJ/m² ISO 179/1eA Charpy 30°C, V-notch Edgew 80*10*3 sp=62mm 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 8.E-05 1/°C	Tensile Modulus, 1 mm/min	2200	MPa	ISO 527
IMPACT Value Unit Standard Izod Impact, notched, 23°C 640 J/m ASTM D 256 Izod Impact, notched, -30°C 480 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Instrumented Impact Total Energy, -30°C 70 J ASTM D 3763 Izod Impact, notched 80°10°3 +23°C 70 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 45 kJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -23°C 45 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 45 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM D 648 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 13602 <td>Flexural Stress, yield, 2 mm/min</td> <td>83</td> <td>MPa</td> <td>ISO 178</td>	Flexural Stress, yield, 2 mm/min	83	MPa	ISO 178
Izod Impact, notched, 23°C 640 J/m ASTM D 256 Izod Impact, notched, -30°C 480 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Instrumented Impact Total Energy, -30°C 70 J ASTM D 3763 Izod Impact, notched 80°10°3 + 23°C 70 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 + 23°C 45 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 + 23°C 45 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 45 KJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 45 kJ/m² ISO 179/1eA Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 Thermal Conductivity 0.2 W/m~°C ISO 11359-2 CTE, -40°C to 40°C, flow 8	Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
Izod Impact, notched, -30°C 480 J/m ASTM D 256 Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Instrumented Impact Total Energy, -30°C 70 J ASTM D 3763 Izod Impact, notched 80°10°3 +23°C 70 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 +23°C 45 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 45 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 45 KJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 45 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 45 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 45 kJ/m² ISO 179/1eA Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 1525 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 1309.2 CTE,	ІМРАСТ	Value	Unit	Standard
Instrumented Impact Total Energy, 23°C 56 J ASTM D 3763 Instrumented Impact Total Energy, -30°C 70 J ASTM D 3763 Izod Impact, notched 80*10*3 +23°C 70 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 +23°C 45 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 70 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 45 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 45 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 45 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 127 °C ASTM D 4525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/-2°C % 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/	Izod Impact, notched, 23°C	640	J/m	ASTM D 256
Instrumented Impact Total Energy, -30°C 70 J ASTM D 3763 Izod Impact, notched 80*10*3 +23°C 70 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 -30°C 45 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 45 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 127 °C ASTM D 468 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-	Izod Impact, notched, -30°C	480	J/m	ASTM D 256
Izod Impact, notched 80*10*3 +23°C 70 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 -30°C 45 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 45 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 45 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 Thermal Conductivity 0.2 W/m-°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 GTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 127 °C I	Instrumented Impact Total Energy, 23°C	56	J	ASTM D 3763
Izod Impact, notched 80*10*3 -30°C 45 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 45 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 1306 DT/E, -40°C to 40°C, xflow 8.E-05 1/°C ISO 1305-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 30	Instrumented Impact Total Energy, -30°C	70	J	ASTM D 3763
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 45 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 Thermal Conductivity 0.2 W/m-°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306	Izod Impact, notched 80*10*3 +23°C	70	kJ/m²	ISO 180/1A
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm 45 kJ/m² ISO 179/1eA THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306	Izod Impact, notched 80*10*3 -30°C	45	kJ/m²	ISO 180/1A
THERMAL Value Unit Standard Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 0.2 W/m-°C ISO 8302 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Bf	Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	70	kJ/m²	ISO 179/1eA
Vicat Softening Temp, Rate B/50 127 °C ASTM D 1525 HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af <	Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	45	kJ/m²	ISO 179/1eA
HDT, 1.82 MPa, 3.2mm, unannealed 107 °C ASTM D 648 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	THERMAL	Value	Unit	Standard
CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 CTE, -40°C to 40°C, flow 7.E-05 1/°C ASTM E 831 Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 126 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	Vicat Softening Temp, Rate B/50	127	°C	ASTM D 1525
CTE, -40°C to 40°C, xflow 7.E-05 1/°C ASTM E 831 Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 126 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	HDT, 1.82 MPa, 3.2mm, unannealed	107	°C	ASTM D 648
Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 126 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	CTE, -40°C to 40°C, flow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow 8.E-05 1/°C ISO 11359-2 CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 126 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af	CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow 8.E-05 1/°C ISO 11359-2 Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 126 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	Thermal Conductivity	0.2	W/m-°C	ISO 8302
Ball Pressure Test, 75°C +/- 2°C Pass - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 126 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	CTE, -40°C to 40°C, flow	8.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50 127 °C ISO 306 Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 126 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	CTE, -40°C to 40°C, xflow	8.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120 129 °C ISO 306 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 126 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	Ball Pressure Test, 75°C +/- 2°C	Pass	-	IEC 60695-10-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 126 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	Vicat Softening Temp, Rate B/50	127	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 105 °C ISO 75/Af PHYSICAL Value Unit Standard	Vicat Softening Temp, Rate B/120	129	°C	ISO 306
PHYSICAL Value Unit Standard	HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	126	°C	ISO 75/Bf
	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	105	°C	ISO 75/Af
Specific Gravity 1.14 - ASTM D 792	PHYSICAL	Value	Unit	Standard
	Specific Gravity	1.14	-	ASTM D 792

Mold Shrinkage, flow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 260°C/5.0 kgf	22	g/10 min	ASTM D 1238
Density	1.14	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.4	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 260°C/5.0 kg	21	cm³/10 min	ISO 1133
Melt Viscosity, 260°C, 1500 sec-1	195	Pa-s	ISO 11443
ELECTRICAL	Value	Unit	Standard
Volume Resistivity	>1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 0.8 mm	35	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	25	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	IEC 60243-1
		Source GM	D, last updated:09/24/20

Processing

Parameter **Injection Molding** Value Unit 95 - 105 °C Drying Temperature 2 - 4 Drying Time hrs Maximum Moisture Content 0.02 % 260 - 290 Melt Temperature °С Nozzle Temperature 240 - 280 °C °C Front - Zone 3 Temperature 250 - 290 Middle - Zone 2 Temperature 250 - 290 °C °C Rear - Zone 1 Temperature 230 - 260 °C Hopper Temperature 60 - 80 60 - 90 °C Mold Temperature



Pressure is greater than 80 MPa. Contact your local representative. © Moldflow is a registered trademark of the Moldflow Corporation. Source GMD, last updated:09/24/2004

PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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