



Lexan* Resin 144H

Europe-Africa-Middle East: LIMITED USE

LEXAN 144H is a medium viscosity multi purpose grade, containing a release agent to ensure easy processing. FDA food contact compliant in limited colors.

Property

Taber Abrasion, CS-17, 1 kg	TYPICAL PROPERTIES (1)				
Tensile Stress, yield, 50 mm/min 63 MPa ISO 527	MECHANICAL	Value	Unit	Standard	
Tensile Stress, break, 50 mm/min Tensile Strain, yield, 50 mm/min Tensile Strain, yield, 50 mm/min Tensile Modulus, 1 mm/min 110 % ISO 527 Tensile Modulus, 1 mm/min 110 % ISO 527 Tensile Modulus, 1 mm/min 12350 MPa ISO 527 Tensile Modulus, 2 mm/min 12350 MPa ISO 527 Tensile Modulus, 2 mm/min 12300 MPa ISO 178 Hardness, H358/30 MPa ISO 180 Live Unit Standard Lizod Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOd Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOd Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOd Impact, notched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOd Impact, notched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOD Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOD Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOD Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOD Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOD Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOD Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOD Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOD Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/10 IZOD IMPACT ISO 180/10 IZOD IMPACT ISO 180/10 IZOD IMPACT ISO 179/16 IZOD ITOD IXOD IXOD IXOD IXOD IXOD IXOD IXOD IX	Taber Abrasion, CS-17, 1 kg	10	mg/1000cy	SABIC Method	
Tensile Strain, yield, 50 mm/min Tensile Strain, break, 50 mm/min 110 % ISO 527 Tensile Modulus, 1 mm/min 2350 MPa ISO 527 Flexural Stress, yield, 2 mm/min 2300 MPa ISO 178 Flexural Stress, yield, 2 mm/min 2300 MPa ISO 178 Flexural Modulus, 2 mm/min 2300 MPa ISO 178 Flexural Modulus, 2 mm/min 2300 MPa ISO 178 Hardness, H358/30 95 MPa ISO 2039-1 IMPACT Value Unit Standard Uzod Impact, unnotched 80°10°3 +23°C NB KJ/m² ISO 180/1U Izod Impact, unnotched 80°10°3 -30°C NB KJ/m² ISO 180/1U Izod Impact, notched 80°10°3 -23°C NB KJ/m² ISO 180/1U Izod Impact, notched 80°10°3 -23°C NB KJ/m² ISO 180/1U Izod Impact, notched 80°10°3 -30°C NB KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C NB KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C NB KJ/m² ISO 180/1A Izod Impact, notched 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, U-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 Thermal Conductivity NB D.2 W/m~C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 306 HDT/Re, 0.45MPa Edgew 120°10°4 sp=100mm 136 °C ISO 75/Be HDT/Re, 0.45MPa Edgew 120°10°4 sp=100mm 125 °C ISO 75/Be PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) D.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 1183 Water Absorption (23°C/sat) 1.2 g/cm³ ISO 1183 Water Absorption (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C/sat) 1.2 cm²/10 min ISO 1133 PARTA TANNARD 1003 Haze Note Thermals Standard Light Transmission 88 -90 % ASTM D 1003 Haze Refractive Index Unit Standard Value Unit Standard Value Unit Standard	Tensile Stress, yield, 50 mm/min	63	MPa	ISO 527	
Tensile Strain, break, 50 mm/min Tensile Modulus, 1 mm/min Tensile Modulus, 1 mm/min 2350 MPa 1SO 527 Tensile Modulus, 1 mm/min 2300 MPa 1SO 178 Flexural Modulus, 2 mm/min 2300 MPa 1SO 178 Flexural Modulus, 2 mm/min 2300 MPa 1SO 178 Hardness, H358/30 95 MPa 1SO 2039-1 MPACT Value Unit Standard Lized Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/1U Lized Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/1U Lized Impact, unnotched 80°10°3 +23°C NB kJ/m² ISO 180/1U Lized Impact, notched 80°10°3 +23°C NB kJ/m² ISO 180/1U Lized Impact, notched 80°10°3 +23°C NB kJ/m² ISO 180/10 Lized Impact, notched 80°10°3 +23°C NB kJ/m² ISO 180/1A Lized Impact, notched 80°10°3 +23°C NB kJ/m² ISO 180/1A Lized Impact, notched 80°10°3 +23°C NB kJ/m² ISO 180/1A Lized Impact, notched 80°10°3 +23°C NB kJ/m² ISO 179/1eA Charpy 23°C, U-notch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/1eA Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/1eA Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB kJ/m² ISO 179/1eA THERMAL Value Unit THERMAL Value Unit Standard Thermal Conductivity O. 2 W/m~°C ISO 8302 CTE, 23°C to 80°C, flow NB kJ/m² ISO 179/1eU Standard Thermal Conductivity NB kJ/m² ISO 179/1eU NB Standard NB kJ/m² ISO 179/1eU NB KJ/m² ISO 179/1eU NB KJ/m² ISO 179/1eU NB Standard NB kJ/m² ISO 179/1eU NB KJ/m² ISO	Tensile Stress, break, 50 mm/min	70	MPa	ISO 527	
Tensile Modulus, 1 mm/min 2350 MPa ISO 527 Flexural Stress, yield, 2 mm/min 90 MPa ISO 178 Flexural Modulus, 2 mm/min 90 MPa ISO 178 Flexural Modulus, 2 mm/min 2300 MPa ISO 178 Hardness, H358/30 95 MPa ISO 2039-1 MPACT Value Unit Standard Izod Impact, unnotched 80*10*3 +23°C NB KJ/m² ISO 180/1U Izod Impact, unnotched 80*10*3 -30°C NB KJ/m² ISO 180/1U Izod Impact, unnotched 80*10*3 -30°C NB KJ/m² ISO 180/1U Izod Impact, untoched 80*10*3 -30°C 12 KJ/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 70 KJ/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 73 KJ/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 73 KJ/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 73 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, 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 179/1eU THERMAL Value Unit Standard Thermal Conductivity 0.2 W/m·°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 11359-2 Sall Pressure Test, 125°C +/-2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 Wicat Softening Temp, Rate B/120 142 °C ISO 306 Wicat Softening Temp, Rate B/120 142 °C ISO 306 PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 -0.7 % SABIC Method Density 1.2 g/cm³ ISO 1133 Water Absorption (23°C/sat) 0.35 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 Water Absorption (23°C/50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 Water Absorption (23°C/508 RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value U	Tensile Strain, yield, 50 mm/min	6	%	ISO 527	
Flexural Stress, yield, 2 mm/min 90 MPa ISO 178 Flexural Modulus, 2 mm/min 2300 MPa ISO 178 Flexural Modulus, 2 mm/min 2300 MPa ISO 2039-1 IMPACT Value Unit Standard Izod Impact, unnotched 80*10*3 +23*°C NB KJ/m² ISO 180/1U Izod Impact, unnotched 80*10*3 +23*°C NB KJ/m² ISO 180/1U Izod Impact, notched 80*10*3 +23*°C NB KJ/m² ISO 180/1U 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 Izod Impact, notched 80*10*3 +23*°C 70 KJ/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 73 KJ/m² ISO 180/1A Izod Impact, totched 80*10*3 sp=62mm 73 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, 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 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 1359-62 Ball Pressure Test, 125*°C +/- 2*°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/120 141 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Be HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Be HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Be HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Be HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Be HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Be HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Be HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Be HDT/Be, 0.45MPa	Tensile Strain, break, 50 mm/min	110	%	ISO 527	
Flexural Modulus, 2 mm/min 2300 MPa ISO 178 Hardness, H358/30 95 MPa ISO 2039-1 IMPACT Value Unit Standard Izod Impact, unnotched 80°10°3 +23°C NB KJ/m² ISO 180/1U Izod Impact, unnotched 80°10°3 -30°C NB KJ/m² ISO 180/1U Izod Impact, notched 80°10°3 -30°C NB KJ/m² ISO 180/1U Izod Impact, notched 80°10°3 -30°C 70 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 12 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 -30°C 12 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 sp=62mm 73 KJ/m² ISO 180/1A Izod Impact, notched 80°10°3 sp=62mm 73 KJ/m² ISO 179/1eA Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm 14 KJ/m² ISO 179/1eA Charpy 23°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 179/1eA Charpy 23°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 179/1eU Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 179/1eU Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 179/1eU Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 179/1eU Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 179/1eU Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 179/1eU Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 179/1eU Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 179/1eU Charpy -30°C, U-notch Edgew 80°10°3 sp=62mm NB KJ/m² ISO 180/2 THERMAL	Tensile Modulus, 1 mm/min	2350	MPa	ISO 527	
Hardness, H358/30 95 MPa ISO 2039-1 IMPACT Value Unit Standard Izod Impact, unnotched 80*10*3 +23*°C NB kJ/m² ISO 180/1U Izod Impact, unnotched 80*10*3 +23*°C NB kJ/m² ISO 180/1U Izod Impact, unnotched 80*10*3 +23*°C 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 *9*°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 73 kJ/m² ISO 179/1eA ISO 179/1eB ISO 189/2 ISO	Flexural Stress, yield, 2 mm/min	90	MPa	ISO 178	
NBACT Value Unit Standard Izod Impact, unnotched 80*10*3 +23*°C NB kJ/m² ISO 180/1U Izod Impact, unnotched 80*10*3 -30*°C NB kJ/m² ISO 180/1U Izod Impact, notched 80*10*3 +23*°C 70 kJ/m² ISO 180/1U 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 -30*°C 12 kJ/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 73 kJ/m² ISO 179/1eA Charpy 23*°C, V-notch Edgew 80*10*3 sp=62mm 14 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 179/1eU THERMAL Value Unit Standard Thermal Conductivity 0.2 W/m.*°C ISO 8302 CTE, 23*°C to 80*°C, flow 7.E-05 1/*°C ISO 11359-2 Ball Pressure Test, 125*°C +/-2*°C PASSES IEC 66695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 75/Be PHDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 136 °C ISO 75/Be PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 1183 Water Absorption (23*°C / 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300*°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Value Unit Standard Carp Min	Flexural Modulus, 2 mm/min	2300	MPa	ISO 178	
Izod Impact, unnotched 80*10*3 +23°C NB	Hardness, H358/30	95	MPa	ISO 2039-1	
Izod Impact, unnotched 80*10*3 -30°C NB k.J/m² ISO 180/1U Izod Impact, notched 80*10*3 +23°C 70 k.J/m² ISO 180/1A Izod Impact, notched 80*10*3 -30°C 12 k.J/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 73 k.J/m² ISO 180/1A Izod Impact, notched 80*10*3 sp=62mm 73 k.J/m² ISO 179/1eA Izod Impact, notched 80*10*3 sp=62mm 73 k.J/m² ISO 179/1eA Izod Impact, notched Edgew 80*10*3 sp=62mm 14 k.J/m² ISO 179/1eA Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eA Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU Izod Impact, notched Edgew 80*10*3 sp=62mm NB k.J/m² IsO 179/1eU Izod Impact, notched Impact,	IMPACT	Value	Unit	Standard	
Izod Impact, notched 80*10*3 +23°C 70	Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m²	ISO 180/1U	
Izod Impact, notched 80*10*3 -30°C	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 73 kJ/m² ISO 179/1eA Charpy -30°C, V-notch Edgew 80°10°3 sp=62mm 14 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 Value Unit Standard THERMAL Value Unit Standard Thermal Conductivity 0.2 W/m°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 179/1eU Thermal Conductivity 0.2 W/m°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/-2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 75/Be HDT/Ae, 0.45 MPa Edgew 120°10°4 sp=100mm 125 °C ISO 75/Ae	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 14 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 Value Unit Standard Thermal Conductivity 0.2 W/m°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/-2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 136 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Be PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 62 Moisture Absorption (23°C/sat) 0.35 % ISO 62 <td>Izod Impact, notched 80*10*3 -30°C</td> <td>12</td> <td>kJ/m²</td> <td>ISO 180/1A</td>	Izod Impact, notched 80*10*3 -30°C	12	kJ/m²	ISO 180/1A	
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ/m² ISO 179/1eU Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm NB kJ/m² ISO 179/1eU THERMAL Value Unit Standard Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 136 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Ae PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 1183 Water Absorption, (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C/ 50% RH) 0.15 % ISO 1133	Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	73	kJ/m²	ISO 179/1eA	
Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm NB k.J/m² ISO 179/1eU THERMAL Value Unit Standard Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 136 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Ae PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 1183 Water Absorption, (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133	Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	14	kJ/m²	ISO 179/1eA	
THERMAL Value Unit Standard Thermal Conductivity 0.2 W/m-°C ISO 8302 CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 136 °C ISO 75/Be HDT/Be, 1.8 MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Ae PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 62 Water Absorption, (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C/ 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission <td>Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm</td> <td>NB</td> <td>kJ/m²</td> <td>ISO 179/1eU</td>	Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU	
Thermal Conductivity 0.2 W/m-°C ISO 8302	Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU	
CTE, 23°C to 80°C, flow 7.E-05 1/°C ISO 11359-2 Ball Pressure Test, 125°C +/- 2°C PASSES - IEC 60695-10-2 Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120°10°4 sp=100mm 136 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120°10°4 sp=100mm 125 °C ISO 75/Ae PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 1183 Water Absorption, (23°C/sat) 0.35 % ISO 62 Melt Volume Rate, MVR at 300°C/st kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8 % ASTM D 1003 Refractive Index 1.586 - ISO 489 ELECTRICAL Value	THERMAL	Value	Unit	Standard	
Ball Pressure Test, 125°C +/- 2°C	Thermal Conductivity	0.2	W/m-°C	ISO 8302	
Vicat Softening Temp, Rate B/50 141 °C ISO 306 Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 136 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Ae PHYSICAL Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 1183 Water Absorption, (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8	CTE, 23°C to 80°C, flow	7.E-05	1/°C	ISO 11359-2	
Vicat Softening Temp, Rate B/120 142 °C ISO 306 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm 136 °C ISO 75/Be HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm 125 °C ISO 75/Ae PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 1183 Water Absorption, (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8 % ASTM D 1003 Refractive Index 1.586 - ISO 489 ELECTRICAL Value Unit Standard	Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2	
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	Vicat Softening Temp, Rate B/50	141	°C	ISO 306	
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	Vicat Softening Temp, Rate B/120	142	°C	ISO 306	
PHYSICAL Value Unit Standard Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 1183 Water Absorption, (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8	HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	136	°C	ISO 75/Be	
Mold Shrinkage on Tensile Bar, flow (2) 0.5 - 0.7 % SABIC Method Density 1.2 g/cm³ ISO 1183 Water Absorption, (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8	HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	125	°C	ISO 75/Ae	
Density 1.2 g/cm³ ISO 1183 Water Absorption, (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8	PHYSICAL	Value	Unit	Standard	
Water Absorption, (23°C/sat) 0.35 % ISO 62 Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8	Mold Shrinkage on Tensile Bar, flow (2)	0.5 - 0.7	%	SABIC Method	
Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62 Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8	Density	1.2	g/cm³	ISO 1183	
Melt Volume Rate, MVR at 300°C/1.2 kg 12 cm³/10 min ISO 1133 OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8	Water Absorption, (23°C/sat)	0.35	%	ISO 62	
OPTICAL Value Unit Standard Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8	Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62	
Light Transmission 88 - 90 % ASTM D 1003 Haze <0.8	Melt Volume Rate, MVR at 300°C/1.2 kg	12	cm³/10 min	ISO 1133	
Haze	OPTICAL	Value	Unit	Standard	
Refractive Index 1.586 - ISO 489 ELECTRICAL Value Unit Standard	Light Transmission	88 - 90	%	ASTM D 1003	
ELECTRICAL Value Unit Standard	Haze	<0.8	%	ASTM D 1003	
	Refractive Index	1.586	-	ISO 489	
Volume Resistivity >1.E+15 Ohm-cm IEC 60093	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, 3.2 mm	17	kV/mm	IEC 60243-1
Relative Permittivity, 50/60 Hz	2.7	-	IEC 60250
Relative Permittivity, 1 MHz	2.7	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.001	-	IEC 60250
Dissipation Factor, 1 MHz	0.01	-	IEC 60250
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Recognized, 94HB Flame Class Rating (3)	1.5	mm	UL 94
UL Recognized, 94HB Flame Class Rating 2nd value (3)	3	mm	UL 94
Glow Wire Flammability Index 850°C, passes at	1	mm	IEC 60695-2-12
Oxygen Index (LOI)	25	%	ISO 4589

Source GMD, last updated:07/31/1997

Processing

Parameter		
Injection Molding	Value	Unit
Drying Temperature	120	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	280 - 310	°C
Nozzle Temperature	270 - 290	°C
Front - Zone 3 Temperature	280 - 310	°C
Middle - Zone 2 Temperature	270 - 290	°C
Rear - Zone 1 Temperature	260 - 280	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	80 - 110	°C

Source GMD, last updated:07/31/1997

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

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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