#### Lexan\* V200 Sheet



#### Description

Specifically designed for vending machine fronts, Lexan V200 sheet is a clear extruded polycarbonate sheet with a polished surface. Lexan V 200 sheet offers outstanding clarity and impact resistance, together with ease of fabrication and decoration. Lexan V 200 sheet is ideally suited for flat or curved vending machine fronts.

#### Typical Property Values

Tensile Impact Strength, S-Type SpecimenASTM 1822ft-lbs/in2225-300Shear Strength @ YieldASTM D732psi6,000@ Ultimate0000950950114,000Shear ModulusASTM D732psi114,000Deformation Under Load @ 4,000 psi, @ 73°FASTM D621%0.2@ 158°F0.30.30.3ThermalCoefficient of Thermal ExpansionASTM D696in/in/°F3.75 x 10Coefficient of Thermal ConductivityASTM C177Btu/hr/ft2/°F/in1.35Specific Heat @ 40°C0.20.30280Heat Deflection Temperature, @ 264 psiASTM D648°F270@ 66 psi280280280Brittle TemperatureASTM D746°F-211Electrical Dielectric Constant, @ 60 Hz @ 1,000,000 HzASTM D1503.17 2.96Volume ResistivityASTM D257 .0009ohm-cm8.2 x 101 .0009Power Facto , @ 60 Hz @ 1,000,000 HzASTM D495sec10-11 120	Property	Test Method	Unit	Value
Refractive Index @ 77°F         ASTM D542A         -         1.586           Light Transmission (Average), 1/8' disk         ASTM D1003         %         88           Rockwell Hardness         ASTM D785         -         M70           Abrasion Resistance, Taber Abrader, CS-17 wheel         ASTM D785         -         M70           Abrasion Resistance, Taber Abrader, CS-17 wheel         ASTM D570         %         0.15           @ 73° F         0.58         -         0.35         0.35           @ 212° F         0.58         -         0.35         0.58           Mechanical         -         -         0.58         -           Tensile Modulus         ASTM D638         psi         9,500         -         0.35           Flexural Modulus         ASTM D790         psi         13,500         -         -         0.1800         245,000         -         -         0.37 (000)         -         0.000         -         0.000         -         -         0.000         -         -         -         0.37 (000)         -         -         -         0.37 (000)         -         -         0.37 (000)         -         -         -         0.37 (000)         -         -         0.37 (000) <td>Physical</td> <td></td> <td></td> <td></td>	Physical			
Light Transmission (Average), 1/8" disk ASTM D1003 % 88 Rockwell Hardness ASTM D1003 % 75 × 10 Mater Absorption, Equilibrium, 24 Hrs ASTM D1044 ASTM D1044 M3/1,000 cycles 10 Water Absorption, Equilibrium, 24 Hrs 0.15 @ 212° F 0.58 Mechanical Tensile Strength @ Yield ASTM D638 psi 9,000 @ Ultimate 9,500 Tensile Modulus ASTM D638 psi 345,000 Flexural Strength ASTM D638 psi 345,000 Flexural Strength ASTM D790 psi 13,500 @ 1,800 cycles/min, 73°F, 50% RH 1000 Compressive Strength ASTM D695 psi 12,500 Compressive Modulus ASTM D695 psi 345,000 Floxural Endurance ASTM D695 psi 345,000 Elongation ASTM D695 psi 345,000 Elongation ASTM D638 % 110 Osison's Ratio - 0.37 Tensile Impact Strength, Notched @ 1/8" ASTM D256A ft-lbs/in 12-16 Witimate 10,000 Shear Modulus ASTM D732 psi 6,000 @ Ultimate 10,000 Shear Modulus ASTM D732 psi 114,000 Deformation Under Load @ 4,000 psi, @ 73°F, ASTM D695 Shear Strength @ 1/8" ASTM D556A ft-lbs/in 12-16 <b>Thermal</b> Coefficient of Thermal Expansion ASTM D732 psi 114,000 Deformation Under Load @ 4,000 psi, @ 73°F, ASTM D696 Brittle Temperature ASTM D696 psi 114,000 Deformation Under Load @ 4,000 psi, @ 73°F, ASTM D572 psi 114,000 Deformation Under Load @ 4,000 psi, @ 73°F, ASTM D572 psi 114,000 Deformation Under Load @ 4,000 psi, @ 73°F, ASTM D573 psi 114,000 Deformation Under Load @ 4,000 psi, @ 73°F, ASTM D573 psi 114,000 Deformation Under Load @ 4,000 psi, @ 73°F, ASTM D573 psi 114,000 Deformation Under Load @ 4,000 psi, @ 73°F, ASTM D570 220 @ 158°F 0.33 Thermal Coefficient of Thermal Expansion ASTM D570 20 @ 158°F 0.3 Preterical @ 40°C 0.30 @ 270 @ 1,000,000 Hz ASTM D150 3.17 @ 1,000,000 Hz ASTM D150 3.17 @ 1,000,000 Hz ASTM D150 3.17 @ 1,000,000 Hz ASTM D150 0.000 @ 1,000,000 Hz ASTM D150 0.0019 Arc Resistance, Stainless Steel Strip Electrodes ASTM D495 sec 10-11 D100000	Specific Gravity	ASTM D792	-	1.20
Rockwell HardnessASTM D785-M70Abrasion Resistance, Taber Abrader, CS-17 wheelASTM D1044mg/1,000 cycles10Water Absorption, Equilibrium, 24 HrsASTM D1044mg/1,000 cycles10© 73° F0.350.350.35© 212° F0.580.58MechanicalTensile Strength @ YieldASTM D638psi9,500© Ultimate0.599,5009,500Fexural StrengthASTM D790psi13,500Flexural StrengthASTM D790psi13,500Flexural ModulusASTM D790psi12,500Compressive StrengthASTM D695psi12,500Compressive ModulusASTM D695psi12,500ElongationASTM D638%110Poisson's Ratio0.37Izod Impact Strength, Notched @ 1/8"ASTM D526Aft-lbs/in1Unnotched @ 1/8"ASTM D732psi6,000© UltimateASTM D732psi114,000Shear StrengthSystemASTM D6960.2@ UltimateASTM D6960.20.3Coefficient of Thermal ConductivityASTM D6960.2@ 158°F0.35225 × 100.3Coefficient of Thermal ExpansionASTM D696cal/gm/°CCoefficient of Thermal ExpansionASTM D696cal/gm/°CCoefficient of Thermal ExpansionASTM D648°FCoefficient of Thermal ExpansionCasTM D746°FPielectric Constant, @ 66 ps	Refractive Index @ 77°F	ASTM D542A	-	1.586
Abrasion Resistance, Taber Abrader, CS-17 wheel         ASTM D1044         mg/1,000 cycles         10           Water Absorption, Equilibrium, 24 Hrs         ASTM D570         %         0.15         0.15           @ 212° F         0.35         0.35         0.35         0.35         0.35           Mechanical          9,000         © Ultimate         9,500         0.35           Tensile Strength         Overlag         ASTM D538         psi         345,000           Flexural Strength         ASTM D790         psi         345,000           Flexural Endurance         ASTM D637         psi         345,000           Compressive Strength         ASTM D695         psi         12,500           Compressive Modulus         ASTM D695         psi         345,000           Compressive Modulus         ASTM D538         %         110           Poisson's Ratio         -         -         0.37           Izod Impact Strength, Notched @ 1/8"         ASTM D538         %         110           Poisson's Ratio         -         -         0.37           Izod Impact Strength, S-Type Specimen         ASTM D526A         ft-lbs/in2         225-300           Shear Strength @ Yield         ASTM D732         psi </td <td>Light Transmission (Average), 1/8" disk</td> <td>ASTM D1003</td> <td>%</td> <td>88</td>	Light Transmission (Average), 1/8" disk	ASTM D1003	%	88
Water Absorption, Equilibrium, 24 Hrs @ 212° FASTM D570%0.15 0.35 0.58Mechanical Tensile Strength @ YieldASTM D638 @ Ultimatepsi9,000 9,500Tensile ModulusASTM D638 @ Ultimatepsi345,000 9,500Flexural StrengthASTM D790 Pisipsi13,500 13,500Flexural ModulusASTM D790 Pisipsi13,500 12,500Compressive StrengthASTM D695 Compressive Strengthpsi12,500 12,500Compressive ModulusASTM D695 Pisipsi12,500 12,500Flexural Strength, Notched @ 1/8" Unnotched @ 1/8"ASTM D638 Pisi%110 12-16Poisson's Ratio Woldulus0.37 12-16225-300 0.000Shear Strength, Notched @ 1/8" WoltmateASTM D556A Pisift-lbs/in12-16 0.000Shear Strength, Notched @ 1/8" WoltmateASTM D732 Pisipsi6,000 0.000© UltimateASTM D732 @ 158°Fpsi114,000 0.02Shear Strength @ Yield @ 1,000,000 HzASTM D696 @ 1,000,000 Hzcal/gm/°C 2.302.35 x 11 2.375 x 11Flectrical Dielectric Constant, @ 60 Hz @ 1,000,000 HzASTM D570 ASTM D5703.17 2.96 0.0103.17 2.96 0.010Power Facto , @ 60 Hz @ 1,000,000 HzASTM D575 ASTM D495sec10.01 0.0010Arc Resistance, Stainless Steel Strip Electrodes Tungsten ElectrodesASTM D495sec10.01 0.0010	Rockwell Hardness	ASTM D785	-	M70
<ul> <li></li></ul>	Abrasion Resistance, Taber Abrader, CS-17 wheel	ASTM D1044	mg/1,000 cycles	10
Tensile Strength @ Yield       ASTM D638       psi       9,000         @ Ultimate       9,500         Tensile Modulus       ASTM D638       psi       345,000         Flexural Strength       ASTM D790       psi       345,000         Flexural Endurance       ASTM D790       psi       345,000         @ 1,800 cycles/min, 73°F, 50% RH       1,000       1,000         Compressive Strength       ASTM D695       psi       12,500         Compressive Modulus       ASTM D638       %       110         Poisson's Ratio       -       -       0.37         Izod Impact Strength, Notched @ 1/8"       ASTM D256A       ft-lbs/in1       12-16         Unnotched @ 1/8"       ASTM D732       psi       60,000         @ Ultimate       ASTM D732       psi       114,000         Shear Strength @ Yield       ASTM D732       psi       114,000         Deformation Under Load @ 4,000 psi, @ 73°F       ASTM D696       in/in/°F       3.75 × 10         Specific Heat @ 40°C       @ 158°F       0.3       20       3.35         Coefficient of Thermal Expansion       ASTM D696       in/in/°F       3.75 × 10       3.75 × 10         Coefficient of Thermal Expansion       ASTM D696 <t< td=""><td>Water Absorption, Equilibrium, 24 Hrs @ 73° F</td><td></td><td></td><td>0.35</td></t<>	Water Absorption, Equilibrium, 24 Hrs @ 73° F			0.35
@ Ultimate         9,500           Tensile Modulus         ASTM D638         psi         345,000           Flexural Strength         ASTM D790         psi         13,500           Flexural Modulus         ASTM D790         psi         13,500           Flexural Endurance         ASTM D790         psi         13,500           © 1,800 cycles/min, 73°F, 50% RH         1,000         1,000         1,000           Compressive Strength         ASTM D695         psi         12,500           Compressive Modulus         ASTM D638         %         110           Poisson's Ratio         -         0.37         12,161           Lod Impact Strength, Notched @ 1/8"         ASTM D536         ft-lbs/in         12-16           Unnotched @ 1/8"         ASTM D732         psi         60 (no fe           Tensile Impact Strength, S-Type Specimen         ASTM D732         psi         114,000           Shear Strength @ Vield         ASTM D732         psi         1144,000           Deformation Under Load @ 4,000 psi, @ 73°F         Gal/moreC         0.2         0.3           Thermal         Coefficient of Thermal Expansion         ASTM D648         °F         270         0.30           Patter Thermal Expansion         ASTM D746	Mechanical			
Tensile Modulus       ASTM D638       psi       345,000         Flexural Strength       ASTM D790       psi       13,500         Flexural Endurance       ASTM D671       psi       345,000         @ 1,800 cycles/min, 73°F, 50% RH       1,000       1,000         Compressive Strength       ASTM D695       psi       12,500         Compressive Modulus       ASTM D695       psi       345,000         Compressive Modulus       ASTM D695       psi       345,000         Compressive Modulus       ASTM D695       psi       345,000         Compressive Modulus       ASTM D638       %       110         Poisson's Ratio       -       -       0.37         Izod Impact Strength, Notched @ 1/8"       -       -       0.37         Tensile Impact Strength, S-Type Specimen       ASTM D732       psi       60,000         @ Ultimate       ASTM D732       psi       114,000         Deformation Under Load @ 4,000 psi, @ 73°F       ASTM D696       in/in/°F       3.75 × 10         Coefficient of Thermal Expansion       ASTM D648       °F       270         @ 158°F       0.3       280       280         Brittle Temperature, @ 264 psi       ASTM D746       °F       -2	-	ASTM D638	psi	
Flexural Modulus       ASTM D790       psi       345,000         Flexural Endurance       ASTM D671       psi       1,000         © 1,800 cycles/min, 73°F, 50% RH       1,000       1,000         Compressive Strength       ASTM D695       psi       12,500         Compressive Modulus       ASTM D695       psi       345,000         Elongation       ASTM D638       %       110         Poisson's Ratio       -       0.37       12         Izod Impact Strength, Notched @ 1/8"       ASTM D256A       ft-lbs/in1       12-16         Unnotched @ 1/8"       ASTM D732       psi       6,000         Shear Strength @ Yield       ASTM D732       psi       114,000         Deformation Under Load @ 4,000 psi, @ 73°F       ASTM D621       %       0.2         @ 158°F       0.3       0.3       0.3       0.3         Thermal         Coefficient of Thermal Expansion       ASTM D696       in/in/°F       3.75 x 10         Coefficient of Thermal Expansion       ASTM D648       °F       270         @ 158°F       0.30       °F       280       3.17         Brittle Temperature       @ 66 psi       8TM D746       °F       -211	Tensile Modulus	ASTM D638	psi	
Flexural Modulus       ASTM D790       psi       345,000         Flexural Endurance       ASTM D671       psi       1,000         © 1,800 cycles/min, 73°F, 50% RH       1,000       1,000         Compressive Strength       ASTM D695       psi       12,500         Compressive Modulus       ASTM D695       psi       345,000         Elongation       ASTM D638       %       110         Poisson's Ratio       -       -       0.37         Izod Impact Strength, Notched @ 1/8"       ASTM D256A       ft-lbs/in1       12-16         Unnotched @ 1/8"       ASTM D732       psi       6,000         Shear Strength @ Yield       ASTM D732       psi       114,000         Deformation Under Load @ 4,000 psi, @ 73°F       ASTM D621       %       0.2         @ 158°F       0.3       0.3       0.3       0.3         Thermal         Coefficient of Thermal Expansion       ASTM D696       in/in/°F       3.75 x 10         Coefficient of Thermal Conductivity       ASTM D648       °F       270         Specific Heat @ 40°C       ASTM D648       °F       220       3.0         Brittle Temperature       G6 psi       ASTM D150       3.17       200				,
Flexural Endurance       ASTM D671       psi         @ 1,800 cycles/min, 73°F, 50% RH       1,000         Compressive Strength       ASTM D695       psi         Compressive Modulus       ASTM D695       psi       345,000         Poisson's Ratio       -       -       0.37         Izod Impact Strength, Notched @ 1/8"       ASTM D256A       ft-lbs/in       12-16         Munotched @ 1/8"       ASTM D732       psi       6,000         @ Ultimate       Montched       ASTM D732       psi       114,000         Shear Modulus       ASTM D732       psi       114,000         Deformation Under Load @ 4,000 psi, @ 73°F       ASTM D621       %       0.2         @ 158°F       0.3       0.3       0.3       0.3         Thermal         Coefficient of Thermal Expansion       ASTM D696       in/in/°F       3.75 × 10         Coefficient of Thermal Expansion       ASTM D648       °F       270         @ 66 psi       Brittle Temperature				
@ 1,800 cycles/min, 73°F, 50% RH       1,000         Compressive Strength       ASTM D695       psi       12,500         Compressive Modulus       ASTM D695       psi       345,000         Elongation       ASTM D638       %       110         Poisson's Ratio       -       -       0.37         Izod Impact Strength, Notched @ 1/8"       ASTM D256A       ft-lbs/in       12–16         Unnotched @ 1/8"       ASTM D732       psi       60 (no fa         Tensile Impact Strength, S-Type Specimen       ASTM D732       psi       10,000         Shear Strength @ Yield       ASTM D732       psi       114,000         Deformation Under Load @ 4,000 psi, @ 73°F       ASTM D621       %       0.2         @ 158°F       0.3       0.30       0       0       0         Thermal         Coefficient of Thermal Expansion       ASTM D696       in/in/°F       3.75 x 10         Coefficient of Thermal Conductivity       ASTM D648       °F       270         @ 66 psi       Bruther/ft2/°F/in       1.35       280         Brittle Temperature       ASTM D746       °F       -211         Electrical       0       2.96       2.96         Dielectric Const	Flexural Endurance	ASTM D671	psi	,
Compressive StrengthASTM D695psi12,500Compressive ModulusASTM D695psi345,000ElongationASTM D638%110Poisson's Ratio0.37Izod Impact Strength, Notched @ 1/8"ASTM D256Aft-lbs/in12-16Unnotched @ 1/8"ASTM D256Aft-lbs/in2225-300Shear Strength @ YieldASTM D732psi60 (no fa@ UltimateASTM D732psi114,000Shear ModulusASTM D732psi114,000Deformation Under Load @ 4,000 psi, @ 73°FASTM D621%0.2@ 158°F0.3158°F0.3ThermalCoefficient of Thermal ExpansionASTM D696in/in/°F3.75 x 10Coefficient of Thermal ConductivityASTM D696in/in/°F3.75 x 10Specific Heat @ 40°CASTM D696in/in/°F2.70280Heat Deflection Temperature, @ 264 psiASTM D648°F270@ 66 psiBrittle TemperatureASTM D1503.172.96Wolume ResistivityASTM D257ohm-cm8.2 x 10°Power Facto, @ 60 HzASTM D257ohm-cm8.2 x 10°Outure Resistance, Stainless Steel Strip ElectrodesASTM D495sec10-11Arc Resistance, Stainless Steel Strip ElectrodesASTM D495sec10-11	@ 1,800 cycles/min, 73°F, 50% RH			1,000
ElongationASTM D638%110Poisson's Ratio0.37Izod Impact Strength, Notched @ 1/8"ASTM D256Aft-lbs/in12-16Unnotched @ 1/8"ASTM D256Aft-lbs/in2225-300Shear Strength @ YieldASTM D732psi6,000@ UltimateMSTM D732psi10,000Shear ModulusASTM D732psi114,000Deformation Under Load @ 4,000 psi, @ 73°FASTM D621%0.2@ 158°F0.30.30.30.3ThermalCoefficient of Thermal ExpansionASTM D696in/in/°F3.75 x 10Coefficient of Thermal ConductivityASTM D696cal/gm/°C0.30Brittle Temperature, @ 264 psiASTM D648°F270@ 66 psiASTM D746°F-211280Brittle TemperatureASTM D1503.172.96Volume ResistivityASTM D1503.172.96Volume ResistivityASTM D150.009.0009@ 1,000,000 HzASTM D150.0009.0009@ 1,000,000 HzASTM D150.0009.0010Arc Resistance, Stainless Steel Strip ElectrodesASTM D495sec10-11Iongstein ElectrodesASTM D495sec10-11120		ASTM D695	psi	
Poisson's Ratio0.37Izod Impact Strength, Notched @ 1/8"ASTM D256Aft-lbs/in12-16Unnotched @ 1/8"ASTM D256Aft-lbs/in2225-300Shear Strength @ YieldASTM D732psi6,000@ Ultimate010,000Shear ModulusASTM D732psi114,000Deformation Under Load @ 4,000 psi, @ 73°FASTM D621%0.2@ 158°F0.30.30.3Thermal Coefficient of Thermal ConductivityCoefficient of Thermal ConductivityASTM D696in/in/°F3.75 x 10Coefficient of Thermal ConductivityASTM D648°F270@ 66 psiASTM D746°F-211280Brittle TemperatureASTM D746°F-211Electrical Dielectric Constant, @ 60 Hz @ 1,000,000 HzASTM D257ohm-cm8.2 x 107 .0009 .0010Power Facto, @ 60 Hz @ 1,000,000 HzASTM D495sec10-11 .120	Compressive Modulus	ASTM D695	psi	345,000
Izod Impact Strength, Notched @ 1/8" Unnotched @ 1/8"ASTM D256Aft-lbs/in12-16Go (no fa 60 (no fa 60 (no fa 60 (no fa 90 (no fa 	Elongation	ASTM D638	%	110
Unnotched @ 1/8"60 (no faTensile Impact Strength, S-Type SpecimenASTM 1822ft-lbs/in2225-300Shear Strength @ YieldASTM D732psi6,000@ Ultimate10,000Shear ModulusASTM D732psi114,000Deformation Under Load @ 4,000 psi, @ 73°FASTM D621%0.2@ 158°F0.30.30.20.3ThermalCoefficient of Thermal ExpansionASTM D696in/in/°F3.75 x 10Coefficient of Thermal ConductivityASTM C177Btu/hr/ft2/°F/in1.35Specific Heat @ 40°C4STM D648°F270Heat Deflection Temperature, @ 264 psiASTM D746°F-211Electrical03.172803.17Dielectric Constant, @ 60 HzASTM D1503.172.96Volume ResistivityASTM D257ohm-cm8.2 x 107Power Facto , @ 60 HzASTM D150.0009.0010@ 1,000,000 HzASTM D150.0009.0010Arc Resistance, Stainless Steel Strip ElectrodesASTM D495sec10-11Tungsten ElectrodesASTM D495sec10-11	Poisson's Ratio	-	-	0.37
Tensile Impact Strength, S-Type SpecimenASTM 1822ft-lbs/in2225-300Shear Strength @ YieldASTM D732psi6,000@ UltimateASTM D732psi10,000Shear ModulusASTM D732psi114,000Deformation Under Load @ 4,000 psi, @ 73°FASTM D621%0.2@ 158°F0.30.30.3ThermalCoefficient of Thermal ExpansionASTM D696in/in/°F3.75 x 10Coefficient of Thermal ConductivityASTM C177Btu/hr/ft2/°F/in1.35Specific Heat @ 40°CaSTM D648°F270@ 66 psiASTM D746°F271Brittle TemperatureASTM D746°F-211Electrical Dielectric Constant, @ 60 Hz @ 1,000,000 HzASTM D1503.17 .296Volume Resistivity Power Facto , @ 60 Hz @ 1,000,000 HzASTM D257ohm-cm8.2 x 101 .0009.0010 @ 1,000,000 HzASTM D150.0009 .0010.0010Arc Resistance, Stainless Steel Strip Electrodes Tungsten ElectrodesASTM D495sec10-11 .1020	Izod Impact Strength, Notched @ 1/8"	ASTM D256A	ft-lbs/in	12-16
Shear Strength @ YieldASTM D732psi6,000@ Ultimate10,000Shear ModulusASTM D732psiDeformation Under Load @ 4,000 psi, @ 73°FASTM D621%@ 158°F0.3ThermalCoefficient of Thermal ExpansionASTM D696in/in/°FCoefficient of Thermal ConductivityASTM C177Btu/hr/ft²/°F/in1.35Specific Heat @ 40°Ccal/gm/°C0.30Heat Deflection Temperature, @ 264 psiASTM D648°F270@ 66 psi280280Brittle TemperatureASTM D746°F-211Electrical Dielectric Constant, @ 60 HzASTM D1503.17@ 1,000,000 Hz2.96.0009.0009@ 1,000,000 HzASTM D150.0009@ 1,000,000 HzASTM D495sec10-11Arc Resistance, Stainless Steel Strip ElectrodesASTM D495sec10-11Iungsten ElectrodesASTM D495sec10-11	Unnotched @ 1/8"			60 (no failure)
Shear Strength @ YieldASTM D732psi6,000@ Ultimate10,000Shear ModulusASTM D732psiDeformation Under Load @ 4,000 psi, @ 73°FASTM D621%@ 158°F0.3ThermalCoefficient of Thermal ExpansionASTM D696in/in/°FCoefficient of Thermal ConductivityASTM C177Btu/hr/ft²/°F/in1.35Specific Heat @ 40°Ccal/gm/°C0.30Heat Deflection Temperature, @ 264 psiASTM D648°F270@ 66 psi280280Brittle TemperatureASTM D746°F-211Electrical Dielectric Constant, @ 60 HzASTM D1503.17@ 1,000,000 Hz2.96.0009.0009@ 1,000,000 HzASTM D150.0009@ 1,000,000 HzASTM D495sec10-11Arc Resistance, Stainless Steel Strip ElectrodesASTM D495sec10-11Iungsten ElectrodesASTM D495sec10-11	Tensile Impact Strength, S-Type Specimen	ASTM 1822	ft-lbs/in2	225-300
Shear ModulusASTM D732psi114,000Deformation Under Load @ 4,000 psi, @ 73°F @ 158°FASTM D621%0.2@ 158°F0.3ThermalCoefficient of Thermal Expansion Coefficient of Thermal ConductivityASTM D696in/in/°F3.75 x 10Specific Heat @ 40°C Heat Deflection Temperature, @ 264 psi @ 66 psiASTM D648°F270Brittle TemperatureASTM D648°F280Brittle TemperatureASTM D746°F-211Electrical Dielectric Constant, @ 60 Hz @ 1,000,000 HzASTM D150 ASTM D1503.17 2.96Volume Resistivity Power Facto , @ 60 Hz @ 1,000,000 HzASTM D495sec10-11 1001Arc Resistance, Stainless Steel Strip Electrodes Tungsten ElectrodesASTM D495sec10-11 1001	Shear Strength @ Yield	ASTM D732	psi	6,000
Deformation Under Load @ 4,000 psi, @ 73°F @ 158°FASTM D621%0.2@ 158°F0.3ThermalCoefficient of Thermal Expansion Coefficient of Thermal Conductivity Specific Heat @ 40°C Heat Deflection Temperature, @ 264 psi @ 66 psiASTM D696 ASTM D648in/in/°F3.75 x 10Btu/hr/ft2/°F/in @ 66 psiASTM D648°F280Brittle TemperatureASTM D746°F-211Electrical Dielectric Constant, @ 60 Hz @ 1,000,000 HzASTM D150 ASTM D1503.17 2.96Volume Resistivity @ 1,000,000 HzASTM D257 ASTM D150ohm-cm8.2 x 103 .0009 .0010Arc Resistance, Stainless Steel Strip Electrodes Tungsten ElectrodesASTM D495sec10-11 .001	@ Ultimate			10,000
@ 158°F       0.3         Thermal         Coefficient of Thermal Expansion       ASTM D696       in/in/°F       3.75 x 10         Coefficient of Thermal Conductivity       ASTM C177       Btu/hr/ft²/°F/in       1.35         Specific Heat @ 40°C       cal/gm/°C       0.30         Heat Deflection Temperature, @ 264 psi       ASTM D648       °F       270         @ 66 psi       280       280       280         Brittle Temperature       ASTM D746       °F       -211         Electrical       0       0       3.17       2.96         Volume Resistivity       ASTM D150       3.17       2.96         Volume Resistivity       ASTM D257       ohm-cm       8.2 x 10 <sup>3</sup> Power Facto , @ 60 Hz       ASTM D150       .0009       .0010         @ 1,000,000 Hz       ASTM D150       .0010       .0010         Arc Resistance, Stainless Steel Strip Electrodes       ASTM D495       sec       10-11         Tungsten Electrodes       10-11       1001       1001       1001	Shear Modulus	ASTM D732	psi	114,000
ThermalCoefficient of Thermal ExpansionASTM D696in/in/°F3.75 x 10Coefficient of Thermal ConductivityASTM C177Btu/hr/ft²/°F/in1.35Specific Heat @ 40°Ccal/gm/°C0.30Heat Deflection Temperature, @ 264 psiASTM D648°F270@ 66 psi@66 psi280Brittle TemperatureASTM D746°F-211Electrical	Deformation Under Load @ 4,000 psi, @ 73°F	ASTM D621	%	0.2
Coefficient of Thermal ExpansionASTM D696in/in/°F3.75 x 10Coefficient of Thermal ConductivityASTM C177Btu/hr/ft²/°F/in1.35Specific Heat @ 40°CaSTM D648°F270@ 66 psiaSTM D648°F280Brittle TemperatureASTM D746°F-211ElectricalDielectric Constant, @ 60 HzASTM D1503.17@ 1,000,000 HzASTM D257ohm-cm8.2 x 10 <sup>3</sup> Yolume ResistivityASTM D150.0009.0010@ 1,000,000 HzASTM D150.0010.0010Arc Resistance, Stainless Steel Strip ElectrodesASTM D495sec10-11Tungsten Electrodes120.0010.0010	@ 158°F			0.3
Coefficient of Thermal ConductivityASTM C177Btu/hr/ft²/°F/in cal/gm/°C1.35 0.30Specific Heat @ 40°CaSTM D648°F270 280Weat Deflection Temperature, @ 264 psi @ 66 psiASTM D648°F270 280Brittle TemperatureASTM D746°F-211Electrical Dielectric Constant, @ 60 HzASTM D1503.17 2.96Volume ResistivityASTM D257ohm-cm8.2 x 101 .0009Power Facto , @ 60 HzASTM D150.0009@ 1,000,000 HzASTM D150.0010 .0010Arc Resistance, Stainless Steel Strip ElectrodesASTM D495secIonum Stein ElectrodesASTM D495secUningsten Electrodes120	Thermal			
Specific Heat @ 40°C       cal/gm/°C       0.30         Heat Deflection Temperature, @ 264 psi       ASTM D648       °F       270         @ 66 psi       ASTM D746       °F       280         Brittle Temperature       ASTM D746       °F       -211         Electrical       Dielectric Constant, @ 60 Hz       ASTM D150       3.17         @ 1,000,000 Hz       ASTM D257       ohm-cm       8.2 x 10 <sup>2</sup> Power Facto , @ 60 Hz       ASTM D150       .0009       .0010         Arc Resistance, Stainless Steel Strip Electrodes       ASTM D495       sec       10-11         Tungsten Electrodes       ASTM D495       sec       10-11				3.75 x 10 <sup>-5</sup>
Heat Deflection Temperature, @ 264 psi       ASTM D648       °F       270         @ 66 psi       ASTM D746       °F       -211         Electrical       Dielectric Constant, @ 60 Hz       ASTM D746       °F       -211         Volume Resistivity       ASTM D257       ohm-cm       8.2 x 10 <sup>2</sup> Power Facto , @ 60 Hz       ASTM D150       .0009       .0009         @ 1,000,000 Hz       ASTM D150       .0009         Arc Resistance, Stainless Steel Strip Electrodes       ASTM D495       sec       10-11         Tungsten Electrodes       .020       .0010       .0010		ASTM C177		
@ 66 psi       280         Brittle Temperature       ASTM D746       °F       -211         Electrical       Dielectric Constant, @ 60 Hz       ASTM D150       3.17         @ 1,000,000 Hz       2.96       280         Volume Resistivity       ASTM D257       ohm-cm       8.2 x 10 <sup>3</sup> Power Facto , @ 60 Hz       ASTM D150       .0009       .0010         Arc Resistance, Stainless Steel Strip Electrodes       ASTM D495       sec       10-11         Tungsten Electrodes       120       .0010       .0010		ASTM D648		
Brittle Temperature     ASTM D746     °F     -211       Electrical Dielectric Constant, @ 60 Hz     ASTM D150     3.17       @ 1,000,000 Hz     2.96       Volume Resistivity     ASTM D257     ohm-cm       Power Facto , @ 60 Hz     ASTM D150     .0009       @ 1,000,000 Hz     .0010     .0010       Arc Resistance, Stainless Steel Strip Electrodes Tungsten Electrodes     ASTM D495     sec     10-11		ASTH D040	I	
Dielectric Constant, @ 60 Hz     ASTM D150     3.17       @ 1,000,000 Hz     2.96       Volume Resistivity     ASTM D257     ohm-cm       Power Facto, @ 60 Hz     ASTM D150     .0009       @ 1,000,000 Hz     .0010     .0010       Arc Resistance, Stainless Steel Strip Electrodes     ASTM D495     sec       Image: Tungsten Electrodes     120		ASTM D746	°F	
@ 1,000,000 Hz         2.96           Volume Resistivity         ASTM D257         ohm-cm         8.2 x 10 <sup>3</sup> Power Facto , @ 60 Hz         ASTM D150         .0009         .0010           @ 1,000,000 Hz         .0010         .0010         .0010           Arc Resistance, Stainless Steel Strip Electrodes         ASTM D495         sec         10-11           Tungsten Electrodes         .000         .000         .0010				
Volume Resistivity     ASTM D257     ohm-cm     8.2 x 10 <sup>3</sup> Power Facto, @ 60 Hz     ASTM D150     .0009       @ 1,000,000 Hz     .0010       Arc Resistance, Stainless Steel Strip Electrodes     ASTM D495     sec       Industrial     Industrial		ASTM D150		
Power Facto, @ 60 Hz     ASTM D150     .0009       @ 1,000,000 Hz     .0010       Arc Resistance, Stainless Steel Strip Electrodes     ASTM D495     sec     10-11       Tungsten Electrodes     120			ohm-cm	
@ 1,000,000 Hz       .0010         Arc Resistance, Stainless Steel Strip Electrodes       ASTM D495       sec       10-11         Tungsten Electrodes       120			UIIII-CIII	
Arc Resistance, Stainless Steel Strip Electrodes ASTM D495 sec 10-11 Tungsten Electrodes 120				
Elammahility	Arc Resistance, Stainless Steel Strip Electrodes	ASTM D495	sec	
Horizontal Burn (Flame Spread), AEB ASTM D635 in <1	Flammability Horizontal Burn (Flame Spread), AEB	ASTM D635	in	<1

 These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local SABIC Innovative Plastics, Specialty Film & Sheet representative

\* Trademarks of SABIC Innovative Plastics IP BV

# SABIC Innovative Plastics™

### Lexan\* V200 Sheet



#### **Product Datasheet**

#### Processing

Lexan V200 sheet can be used for thermoforming. It offers high, deep draw ratios, equal wall thickness distribution, and it can be formed into complex shapes using standard thermoforming equipment. Sandwich type heating systems give the best results. Lexan V200 sheet has a forming temperature range of 350-400°F. When forming, a draft angle of at least 3° should be allowed, and post mold shrinkage of .007-.009 in/in taken into account.

#### Pre-drying

It is important to ensure that Lexan V200 sheet is free of moisture prior to thermoforming. A hot air circulating oven set at 250°F is recommended. Pre-drying times vary from 3-24 hours, depending on sheet thickness.

#### Assembling

Parts made from Lexan V200 sheet can be assembled with plastics, metals, rubber and other materials using many types of adhesive bonding, welding and mechanical fastening techniques. Since some of these materials can cause environmental stress cracking, please consult SABIC Innovative Plastics, for advice on specific applications

#### Painting

Lexan V200 sheet is well-suited for use with a wide variety of decoration techniques. A list of approved paint and ink systems and suppliers is available upon request.

#### **Chemical Resistance**

Lexan V200 sheet has sufficient resistance to most mineral oils, greases, aliphatic hydrocarbons and acids under low or moderate stress levels. Specific (application related) testing is always advised, especially in applications where the Lexan V200 sheet will come into contact with aggressive chemicals.

#### Product Availability

Product code: Standard gauges: Standard length: Textures: Colors Standard: Lexan V200 sheet .060", .110" 80" V200 - Polished/Polished, polystick masking Clear 112

# Lexan\* Tough Virtually Polycarbonate Sheet Unbreakable

\* Trademark of SABIC Innovative Plastics IP BV

Americas: SABIC Innovative Plastics Specialty Film & Sheet One Plastics Avenue Pittsfield, MA 01201 USA Tel. (1) (413) 448 5400 Fax. (1) (413) 448 7506 Toll free: 1-800 451 3147 Europe: SABIC Innovative Plastics Specialty Film & Sheet Plasticslaan 1 NL - 4612 PX Bergen op Zoom The Netherlands Tel. (31) (164) 292911 Fax. (31) (164) 293272 Pacific: SABIC Innovative Plastics Specialty Film & Sheet 1266 Nanjin Road (W) Plaza 66, 17th Floor 200040 Shanghai, China Tel. (86) 21 62881088 Fax. (86) 21 62880818

THE MATERIALS, PRODUCTS AND SERVICES OF SABIC INNOVATIVE PLASTICS HOLDING BV, ITS SUBSIDIARIES AND AFFILIATES ("SELLER"), ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH CAN BE FOUND AT http://www.sabic-ip.com AND ARE AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION OR RECOMMENDATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SELLER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SELLER'S PRODUCTS, SERVICES OR RECOMMENDATIONS. EXCEPT AS PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user is responsible for making its own determination as to the suitability of Seller's products, services or recommendations for the user's particular use through appropriate end-use testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. No statement by Seller's concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of such product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC Innovative Plastics is a trademark of Sabic Holding Europe BV

\* Trademark of SABIC Innovative Plastics IP BV

# www.sabic-ip.com

Latest update SABIC (01/2008)