



The future is flexible: Corning® Willow® Glass



STEMMERICH, INC.
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- At roughly the same thickness as a sheet of copy paper, Corning® Willow® Glass is thin enough to be flexible while retaining its superior glass attributes. Willow Glass provides the inherent benefits of glass in a mechanically bendable form-factor, enabling cost-efficient device processing.
- Fusion formed, meaning its surface is pristine, incredibly smooth and flat, and virtually free of defects.
- Corning’s patented edge tabs enable practical use of Willow Glass in roll-to-roll processing.
- Willow Glass is also used in architectural applications to provide a high gloss, durable surface finish that can withstand the effects of commercial cleaning agents.

Alkaline Earth Boro-Aluminosilicate	
Thickness	100 µm and 200 µm
Standard Sizes	1.3 m wide x 300 m long (4.25 ft x ~984 ft)
Cut Sizes	Slit roll 300 mm wide up to 1.2 m wide (1 ft to 4 ft)
Packaging	• Rolls with Interleaf • Option for Edge tab / Leader / Trailer

Willow Glass Characteristics

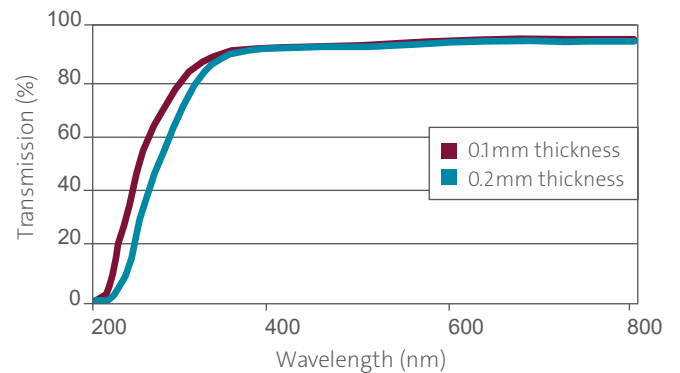
Bulk Properties	Metric Unit	Nominal Values
Density	g/cc	2.56
CTE (0°C to 300°C)	$\times 10^{-7}/^{\circ}\text{C}$	34.6
Young’s Modulus	GPa	78.7
Poisson Ratio	-	0.23
Strain Point	°C	725
Annealing Point	°C	781
Dielectric Constant ($k=E_o/E$)	-	5.95
Surface Roughness	Ra (nm)	< 0.5
	Rpv (nm)	< 20
Minimum bend radius for curved design*	mm	100 µm = 90 mm
		200 µm = 180 mm
Water Vapor Transmission Rate (WVTR)	g/m ² /day	Below Detection Limits
Hardness	2000 g load 15 second dwell time	588

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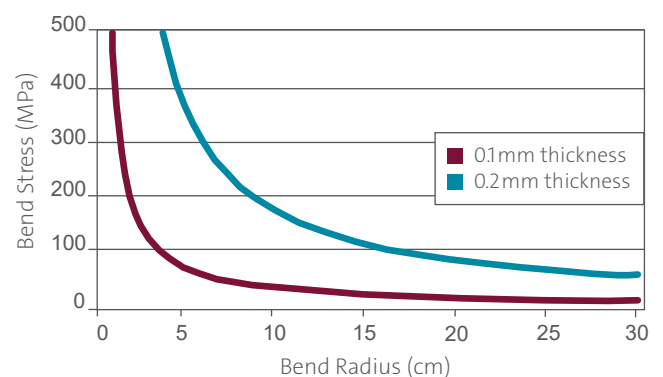
For additional information about handling and safety guidelines, product dimensions, and availability, contact Willow@corning.com.

* Bend radius can be affected by handling.

Optical Transmission



Bend Stress





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	Rolls	Sheets
Composition	Alkali-free Borosilicate	
Thickness	100 µm and 200 µm	250 µm
Standard Sizes	1.3 m wide x 300 m long (4.25 ft x ~984 ft)	Up to 1.5 m x 1.9 m (~5 ft x ~6 ft)
Cut Sizes	Slit roll 300 mm wide up to 1.2 m wide (1 ft to 4 ft)	Options are specific to cutting equipment/supplier
Packaging	<ul style="list-style-type: none"> • Rolls with Interleaf • Option for Edge tab / Leader / Trailer 	<ul style="list-style-type: none"> • Standard sizes packed upright with interleaf separating sheets

Willow Glass Characteristics

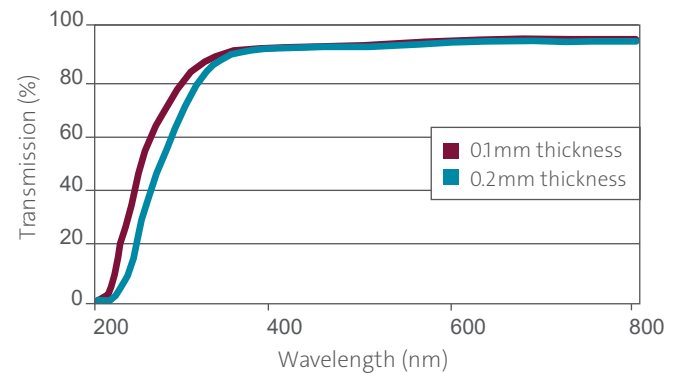
Bulk Properties	Metric Unit	Nominal Values
Density	g/cc	2.38
CTE (0°C to 300°C)	$\times 10^{-7}/^{\circ}\text{C}$	31.7
Young’s Modulus	GPa	73.6
Poisson Ratio	-	0.23
Strain Point	°C	669
Annealing Point	°C	722
Dielectric Constant ($k=E_o/E$)	-	5.27
Surface Roughness	Ra (nm)	< 0.5
	Rpv (nm)	< 20
Minimum bend radius for curved design*	mm	100 µm = 90 mm
		200 µm = 180 mm
Water Vapor Transmission Rate (WVTR)	g/m ² /day	Below Detection Limits
Hardness	2000 g load 25 second dwell time	640

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Optical Transmission



Bend Stress

