## **CORNING** Willow<sup>®</sup> Glass



## The future is flexible: Corning® Willow® Glass

Fact Sheet

- At roughly the same thickness as a sheet of copy paper, Corning<sup>®</sup> Willow<sup>®</sup> 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)	x 10 <sup>-7</sup> /°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 <sub>o</sub> /E)	-	5.95
Surface Poughposs	Ra (nm)	< 0.5
Surface Roughness	Rpv (nm)	< 20
Minimum bend radius for	mm	100 μm = 90 mm
curved design*		200 µm = 180 mm
Water Vapor Transmission Rate (WVTR)	g/m²/day	Below Detection Limits
Hardness	2000 g load 15 second dwell time	588

### Contact Us

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

#### **Optical Transmission**







<sup>\*</sup> Bend radius can be affected by handling.

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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> <li>Rolls with Interleaf</li> <li>Option for Edge tab / Leader / Trailer</li> </ul>	<ul> <li>Standard sizes packed upright with interleaf separating sheets</li> </ul>	

### Willow Glass Characteristics

Bulk Properties	Metric Unit	Nominal Values
Density	g/cc	2.38
CTE (0°C to 300°C)	x 10 <sup>-7</sup> /°C	31.7
Young's Modulus	GPa	73.6
Poisson Ratio	-	0.23
Strain Point	°C	669
Annealing Point	°C	722
Dielectric Constant (k=E₀/E)	-	5.27
Surface Poughposs	Ra (nm)	< 0.5
Surface Roughness	Rpv (nm)	< 20
Minimum bend radius for	220.122	100 μm = 90 mm
curved design*	111111	200 µm = 180 mm
Water Vapor Transmission Rate (WVTR)	g/m²/day	Below Detection Limits
Hardness	2000 g load 25 second dwell time	640

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### **Optical Transmission**



#### **Bend Stress**



<sup>\*</sup> Bend radius can be affected by handling.