



# Corning® Gorilla® Glass 7i

A new cover glass engineered to deliver improved durability for intermediate and value-segment mobile devices. Gorilla Glass 7i broadens Corning's renowned tough glass portfolio, offering better drop and scratch performance compared to competitive lithium aluminosilicate glasses.

## Product Information

### Benefits

- Engineered for competitive drop and scratch performance
- High resistance to sharp contact damage
- High retained strength after use
- Superior surface quality

### Applications

Ideal protective cover material for the front and back of electronic displays:

- Smartphones
- Notebook PCs
- Tablets
- Cameras
- Smartwatches and Wearables
- Commercial and Point of Sale Displays

### Thickness

Standard

0.50 mm – 0.70 mm

Other

Available upon request

### Viscosity

Softening Point ( $10^{7.6}$  poises)

880 °C

Annealing Point ( $10^{13.2}$  poises)

627 °C

Strain Point ( $10^{14.7}$  poises)

576 °C

### Properties

Density

2.41 g/cm<sup>3</sup>

Young's Modulus

77 GPa

Poisson's Ratio

0.22

Shear Modulus

31.8 GPa

Vickers Hardness (200g load)

Unstrengthened

591 kgf/mm<sup>2</sup>

Strengthened

658 kgf/mm<sup>2</sup>

Fracture Toughness

0.78 MPa m<sup>0.5</sup>

Coefficient of Thermal Expansion (0-300°C)

$59.9 \times 10^{-7}/^{\circ}\text{C}$

### Chemical Strengthening

Please contact a Corning Account Manager for chemical strengthening capability based on thickness and application.

### Optical

Refractive Index (590 nm)

Core Glass\*

1.51

Compression Layer

1.51

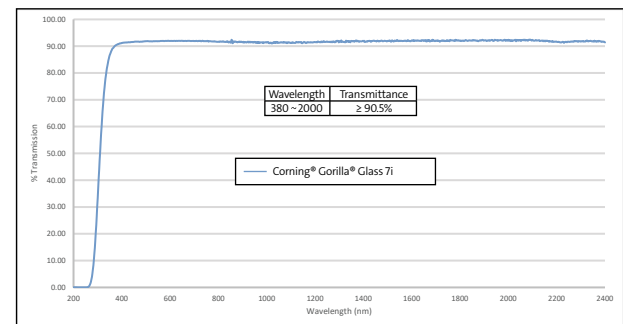
Photo-elastic constant

30.8 nm/cm/MPa

Transmission

@ 0.6 mm thickness

≥ 90.5%



\*Core index is used for FSM-based measurements since it is unaffected by ion-exchanged conditions.

### Chemical Durability

Durability is measured via weight loss per surface area after immersion in the solvents shown below. Values are highly dependent upon actual testing conditions.

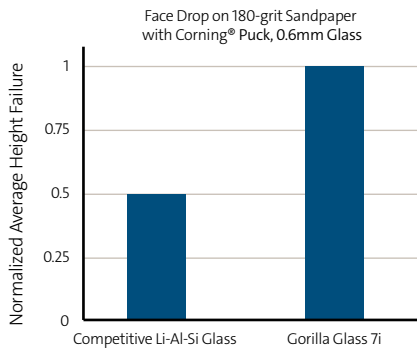
Reagent	Time	Temperature (°C)	Weight Loss (mg/cm <sup>2</sup> )
HCl – 5%	24 hrs.	95	4.7
NH4F: HF – 10%	20 min.	20	1.3
HF – 10%	20 min.	20	15.4
NaOH – 5%	6 hrs.	95	2.3

### Electrical

Frequency (MHz)	Dielectric Constant	Loss Tangent
54	6.48	0.008
163	6.44	0.008
272	6.44	0.008
381	6.41	0.009
490	6.40	0.009
599	6.40	0.009
912	6.26	0.009
1499	6.24	0.010
1977	6.24	0.010
2466	6.24	0.010
2986	6.22	0.011

## Drop Test Performance

Gorilla® Glass 7i survived up to 2X higher than competitive Li-Al-Si on 180-grit sandpaper



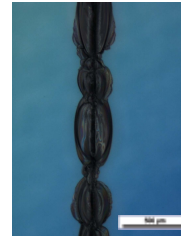
In Corning lab tests, Gorilla Glass 7i survived drops of up to 1 meter on 180-grit sandpaper, simulating asphalt.

Competitive lithium aluminosilicate typically fails from less than 0.5 meters.

## Scratch Test Performance

Gorilla® Glass 7i provided up to 2X higher scratch threshold than competitive Li-Al-Si glasses

Competitive Li-Al-Si Glass (4 Newtons)



Gorilla Glass 7i (8-10 Newtons)



We tested for scratch threshold using our Knoop Diamond Scratch Test. For Gorilla Glass 7i, the scratch threshold is typically 8-10 Newtons. The typical threshold for competitive lithium aluminosilicate is at 4 Newtons.



# Corning® Gorilla® Glass 7i

Always Tough. Always Innovating.

Contact us  
[gorillaglass@corning.com](mailto:gorillaglass@corning.com)

Corning is a registered trademark of Corning Incorporated, Corning, N.Y., USA  
©2024 Corning Incorporated. All rights reserved.

CORNING  
Gorilla® Glass