



Corning® Gorilla® Glass 6

Corning® Gorilla® Glass 6 is engineered to better survive drops from the worldwide average height. In lab tests, it successfully survives up to 1.6-meter drops onto rough surfaces, while still maintaining the superior scratch performance synonymous with Gorilla® Glass. At 1.6 meters, alternative aluminosilicate and soda lime glasses didn't survive a single drop. Gorilla Glass 6 has up to 2x improvement in scratch performance compared to alternative aluminosilicate.

Product Information

Benefits

- Improved drop performance, up to 1.6m
- High resistance to scratch and sharp contact damage
- High retained strength after use
- Superior surface quality

Applications

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

- Smartphones
- Notebook PCs
- Tablets
- Smartwatches and wearables
- Smart Home devices
- Cameras
- Commercial and Point of Sale Displays

Thickness

Standard 0.4 mm – 0.9 mm

Viscosity

Softening Point ($10^{7.6}$ poises) 885 °C
 Annealing Point ($10^{13.2}$ poises) 624 °C
 Strain Point ($10^{14.7}$ poises) 572 °C

Properties

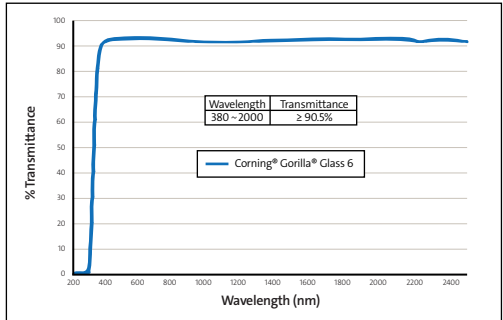
Density 2.40g/cm³
 Young's Modulus 77 GPa
 Poisson's Ratio 0.21
 Shear Modulus 31.9 GPa
 Vickers Hardness (200g load)
 Unstrengthened 611 kgf/mm²
 Strengthened 678 kgf/mm²
 Fracture Toughness 0.70 MPa m^{0.5}
 Coefficient of Expansion (0-300°C) $75.2 \times 10^{-7}/^{\circ}\text{C}$

Chemical Strengthening

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

Optical

Refractive Index* (590 nm)
 Core Glass 1.50
 Compression Layer 1.51
 Photo-elastic constant 29.8 nm/cm/MPa
 Transmission @ 0.6 mm thickness $\geq 90.5\%$



*Refractive index is used for FSM-based measurements since it is unaffected by ion-exchange 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.

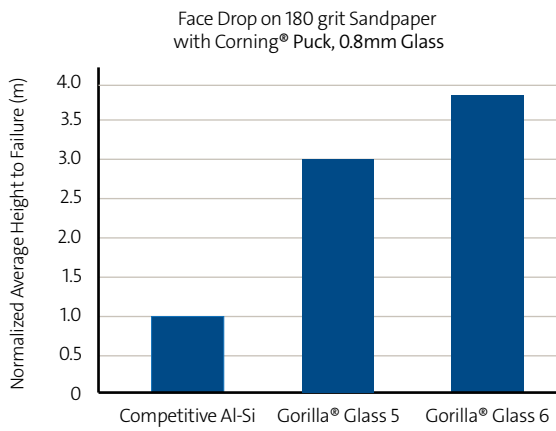
Reagent	Time	Temperature (°C)	Weight Loss (mg/cm ²)
HCl – 5%	24 hrs.	95	6.7
NH4F:HF – 10%	20 min.	20	1.6
HF – 10%	20 min.	20	22.7
NaOH – 5%	6 hrs.	95	2.7

Electrical

Frequency (MHz)	Dielectric Constant	Loss Tangent
54	6.80	0.008
163	6.78	0.009
272	6.77	0.010
381	6.76	0.010
490	6.75	0.010
599	6.74	0.010
912	6.75	0.010
1499	6.71	0.011
1977	6.70	0.012
2466	6.70	0.012
2986	6.69	0.013

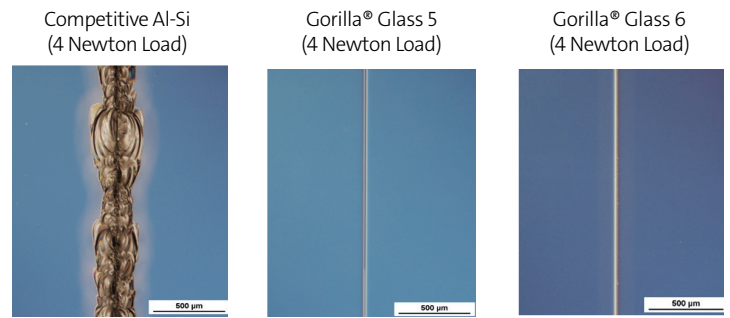
Terminated coaxial line similar to that outlined in NIST Technical Notes 1520 and 1355-R.

Drop Test Performance



Scratch Test Performance

We tested for scratch threshold using our Knoop Diamond Scratch Test.



Always Tough. Always Innovating.



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Contact us
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Gorilla® Glass