Corning® Gorilla® Glass Victus™

Toughest Gorilla® Glass yet; Corning® Gorilla® Glass Victus™ significantly improves both drop and scratch performance for the first time ever in the Gorilla Glass family, addressing consumer demand for improved durability.

Product Information

Benefits
- Improved drop performance, up to 2 m
- High resistance to scratch and sharp contact damage
- High retained strength after use
- Superior surface quality
- Lower softening point vs. Corning® Gorilla® Glass 5 and Corning® Gorilla® Glass 6

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

Thickmess
Standard 0.4 mm – 1.2 mm
Other *Available upon request

Viscosity
Softening Point (10^7.6 poises) 827 °C
Annealing Point (10^19.2 poises) 591 °C
Strain Point (10^47 poises) 543 °C

Properties
Density 2.40 g/cm³
Young’s Modulus 77 GPa
Poisson’s Ratio 0.22
Shear Modulus 31.4 GPa
Vickers Hardness (200g load)
Unstrengthened 590 kgf/mm²
Strengthened 651 kgf/mm²
Fracture Toughness 0.76 MPa m⁰.⁵
Coefficient of Thermal Expansion (0-300°C) 72.5 x 10⁻⁶/°C

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.

<table>
<thead>
<tr>
<th>Reagent</th>
<th>Time</th>
<th>Temperature (°C)</th>
<th>Weight Loss (mg/cm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCl – 5%</td>
<td>24 hrs.</td>
<td>95</td>
<td>49.9</td>
</tr>
<tr>
<td>NH4F:HF – 10%</td>
<td>20 min.</td>
<td>20</td>
<td>1.1</td>
</tr>
<tr>
<td>HF – 10%</td>
<td>20 min.</td>
<td>20</td>
<td>30.5</td>
</tr>
<tr>
<td>NaOH – 5%</td>
<td>6 hrs.</td>
<td>95</td>
<td>4.4</td>
</tr>
</tbody>
</table>

Electrical

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Dielectric Constant</th>
<th>Loss Tangent</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>6.82</td>
<td>0.008</td>
</tr>
<tr>
<td>163</td>
<td>6.78</td>
<td>0.008</td>
</tr>
<tr>
<td>272</td>
<td>6.77</td>
<td>0.009</td>
</tr>
<tr>
<td>381</td>
<td>6.75</td>
<td>0.009</td>
</tr>
<tr>
<td>490</td>
<td>6.74</td>
<td>0.009</td>
</tr>
<tr>
<td>599</td>
<td>6.74</td>
<td>0.009</td>
</tr>
<tr>
<td>912</td>
<td>6.81</td>
<td>0.010</td>
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<tr>
<td>1499</td>
<td>6.80</td>
<td>0.011</td>
</tr>
<tr>
<td>1977</td>
<td>6.78</td>
<td>0.011</td>
</tr>
<tr>
<td>2466</td>
<td>6.78</td>
<td>0.012</td>
</tr>
<tr>
<td>2986</td>
<td>6.76</td>
<td>0.012</td>
</tr>
</tbody>
</table>

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

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

Optical

Refractive Index (590 nm)
- Core Glass*: 1.51
- Compression Layer: 1.52
- Photo-elastic constant: 30.6 nm/cm/MPa

Transmission
@ 0.7 mm thickness ≥ 90.5%
Corning® Gorilla® Glass Victus™
Always Tough. Always Innovating.

Drop Test Performance

In lab tests, Gorilla® Glass Victus™ survived drops from up to 2 meters.

Competitive aluminosilicate typically fails from less than 0.8 meters.

Scratch Test Performance

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

The typical threshold for competitive aluminosilicate is at 2-4 Newtons.
For Gorilla® Glass Victus™, the scratch threshold is typically at 7-10 Newtons. That's up to 4x better!

#TougherTogether