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 (10⁷ poises) 885 °C
- Annealing Point (10¹¹.2 poises) 624 °C
- Strain Point (10¹⁴.7 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 m⁰.⁵
- Coefficient of Expansion (0-300°C): 75.2 x 10⁻⁷/°C

**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: ≥ 90.5%

**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>6.7</td>
</tr>
<tr>
<td>NH₄F:HF – 10%</td>
<td>20 min.</td>
<td>20</td>
<td>1.6</td>
</tr>
<tr>
<td>HF – 10%</td>
<td>20 min.</td>
<td>20</td>
<td>22.7</td>
</tr>
<tr>
<td>NaOH – 5%</td>
<td>6 hrs.</td>
<td>95</td>
<td>2.7</td>
</tr>
</tbody>
</table>

**Electrical**
- Frequency (MHz)
- Dielectric Constant
- Loss Tangent

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Dielectric Constant</th>
<th>Loss Tangent</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>6.80</td>
<td>0.008</td>
</tr>
<tr>
<td>163</td>
<td>6.78</td>
<td>0.009</td>
</tr>
<tr>
<td>272</td>
<td>6.77</td>
<td>0.010</td>
</tr>
<tr>
<td>381</td>
<td>6.76</td>
<td>0.010</td>
</tr>
<tr>
<td>490</td>
<td>6.75</td>
<td>0.010</td>
</tr>
<tr>
<td>599</td>
<td>6.74</td>
<td>0.010</td>
</tr>
<tr>
<td>912</td>
<td>6.75</td>
<td>0.010</td>
</tr>
<tr>
<td>1499</td>
<td>6.71</td>
<td>0.011</td>
</tr>
<tr>
<td>1977</td>
<td>6.70</td>
<td>0.012</td>
</tr>
<tr>
<td>2466</td>
<td>6.70</td>
<td>0.012</td>
</tr>
<tr>
<td>2986</td>
<td>6.69</td>
<td>0.013</td>
</tr>
</tbody>
</table>

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

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

![Bar chart showing Drop Test Performance for Competitive Al-Si, Gorilla® Glass 5, and Gorilla® Glass 6.](chart)

**Scratch Test Performance**

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

![Images showing competitive Al-Si, Gorilla® Glass 5, and Gorilla® Glass 6 under scratch tests.](images)

**Always Tough. Always Innovating.**

**Corning® Gorilla® Glass 6**

Contact us
gorillaglass@corning.com

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