Corning® Gorilla® Glass 6 – Corning’s latest innovation – is engineered to better survive multiple drops. In laboratory tests, on average, Gorilla Glass 6 survived 15 drops from 1 meter onto rough surfaces and is up to 2x better than Gorilla Glass 5. Under the same conditions competitive glass compositions broke on the first drop. Gorilla Glass 6 also has better drop performance at higher heights compared to Gorilla Glass 5.

Product Information

Benefits
- Superior survivability after multiple drops
- Increased drop height performance
- High retained strength after use
- High resistance to scratch and sharp contact damage
- Superior surface quality

Applications
- Ideal protective cover for electronic displays in:
  - Smartphones
  - Laptops, notebooks and tablets
  - Wearable devices
- Device back covers

Dimensions
Available Thickness 0.4mm – 1.2mm

Viscosity
- Softening Point (10[^16] poises) 884.9 °C
- Annealing Point (10[^12] poises) 624 °C
- Strain Point (10[^14] poises) 572 °C

Properties
- Density 2.40 g/cm^3
- Young’s Modulus 77 GPa
- Poisson’s Ratio 0.21
- Shear Modulus 31.9 GPa
- Vickers Hardness (200g load)
  - Unstrengthened 611 kgf/mm^2
  - Strengthened 678 kgf/mm^2
- Fracture Toughness 0.7 MPa m^0.5
- Coefficient of Expansion 75.2 x 10^-7 /°C (0-300°C)

Chemical Strengthening
- Compressive Stress Capability ≥ 900 MPa
- Depth of Compression Capability ≥ 80 µm

Optical
Refractive Index (590 nm)
- Core Glass* 1.50
- Compression Layer 1.51
- Photo-elastic constant 29.8 nm/cm/MPa
*Core index is used for FSM-based measurements since it is unaffected by ion-exchanged conditions.

Chemical Durability
Chemical 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/cm^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCI – 5%</td>
<td>24 hrs.</td>
<td>95</td>
<td>6.74</td>
</tr>
<tr>
<td>NH4F:HF – 10%</td>
<td>20 min.</td>
<td>20</td>
<td>1.56</td>
</tr>
<tr>
<td>HF – 10%</td>
<td>20 min.</td>
<td>20</td>
<td>22.65</td>
</tr>
<tr>
<td>NaOH – 5%</td>
<td>6 hrs.</td>
<td>95</td>
<td>2.66</td>
</tr>
</tbody>
</table>

Electrical
Frequency (MHz) | Dielectric Constant | Loss Tangent |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></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>

Terminated coaxial line similar to the process outlined in NIST Technical Notes 1520 and 1355-R.
Putting Corning® Gorilla® Glass 6 to the Test.

Superior survivability after multiple drops.  
Increased drop height performance on rough surfaces.

Scratch performance equivalent to Gorilla® Glass 5. Clearly outperforms ion-exchanged soda-lime glass.

*all parts tested without anti-smudge coating to probe glass response only

For more information about Corning® Gorilla® Glass 6:
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