Xensation® Cover is a floated alumino-silicate glass that offers an outstanding level of mechanical impact and bending strength, as well as high resistance to scratches. This specialty glass has been designed for highly efficient chemical strengthening (via an ion exchange treatment) to achieve strength performance levels ideally suited for cover glass protecting touch screen devices, as well as protective and ruggedized light-weight glazing solutions.

Xensation® Cover’s outstanding bending strength facilitates the development of innovative glazing solutions that are lightweight, rugged and capable of offering an unmatched level of protection across a variety of applications.

Key-Benefits of Xensation® Cover

- Extremely high impact and bending strength enables thinner, sleeker and more sensitive devices without compromising on strength
- High scratch resistance and tolerance for superior aesthetic appeal and durability
- Pristine, display grade cover glass for a clear, elegant visual quality
- Unique glass composition results in the most robust and reliable cover glass available
- Easy to process according to typical industry standards

Xensation® Cover is produced using SCHOTT’s unique microfloat process.
**Chemical Properties**

**Hydrolytic Resistance**
- DIN ISO 719
- Class HGB 1

**Acid Resistance**
- DIN 12116
- Class 5 4

**Alkali Resistance**
- DIN ISO 695
- Class A 1

**Optical Properties**

**Refractive Index at**
- Core Glass: 588 nm ($n_d$) = 1.508, 633 nm = 1.506, 780 nm = 1.502
- Compression Layer: KNO₃ pure = 1.516, 1.514, 1.510

**Transmittance $\tau$ (Glass Thickness 0.7 mm)**
- 840 nm > 91.5 %
- 560 nm > 91.5 %
- 380 nm > 90 %

**Photoelastic Constant**
- 29.2 nm/cm/MPa

**Thermal Properties**

- **Thermal Conductivity $\lambda_{20^\circ C}$**
  - 0.96 W/(m·K)

- **Specific Heat Capacity $C_{p20^\circ C, 100^\circ C}$**
  - 0.84 kJ/(Kg ·K)

- **Coefficient of Mean Linear Thermal Expansion $\alpha_{20^\circ C, 300^\circ C}$**
  - $8.8 \cdot 10^{-6}$ K⁻¹

- **Transformation Point Tg**
  - 615 °C*

- **Annealing Point (10¹³ dPas)**
  - 635 °C

- **Softening Point (10⁷ dPas)**
  - 880 °C

- **Working Point (10⁴ dPas)**
  - 1265 °C

* cooled according to DIN

**Mechanical Properties**

- **Density**
  - 2.477 g/cm³*

- **Young's Modulus E**
  - 74 kN/mm²

- **Poisson's Ratio**
  - 0.215

- **Shear Modulus**
  - 30 kN/mm²

- **Knoop Hardness HK₅/₁₀₀₂₀**
  - Non-strengthened: 534
  - Strengthened: 639

- **Vickers Hardness HV₀₂₀**
  - Non-strengthened: 617
  - Strengthened: 681

* cooled according to DIN

**Electrical Properties**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Dielectric Constant</th>
<th>Loss Tangent $\tan\delta$</th>
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</thead>
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<td>MHz</td>
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<tr>
<td>2986</td>
<td>7.34</td>
<td>0.012</td>
</tr>
</tbody>
</table>

**Electric Volume Resistivity $\varrho_c$ for A.C. at 50Hz**

- $\nu = 250^\circ C$: $1.5 \cdot 10^4 \Omega \cdot cm$
- $\nu = 350^\circ C$: $8.9 \cdot 10^4 \Omega \cdot cm$