SCHOTT Xensation™ Cover AG
Alumino-Silicate Glass with Anti-Glare for Capacitive Touch Technologies

Xensation™ is the answer to all of your cover and touch technology needs. SCHOTT is unique in being able to offer the broadest range of high-quality glass types for all cover and touch applications, including capacitive, resistive, optical and acoustic.

Xensation™ Cover AG is a high-quality alumino-silicate glass now available with a state-of-the-art anti-glare solution. In addition to offering the outstanding resistance to damage that Xensation™ Cover has become renowned for, Xensation™ Cover AG is designed to improve and/or optimize the readability and visibility of high resolution displays during use under adverse viewing conditions, such as bright sunlight or high ambient lighting.

Key-Benefits of Xensation™ Cover AG

- The world’s first ultra-strong cover glass with state-of-the-art anti-glare effect
- Significantly reduces glare on high resolution displays, even under adverse viewing conditions (bright sunlight, high ambient lighting)
- Uniform, homogenous surface modification offers improved visibility and smooth touch experience for consumers
- Unique surface structure optimized for easy cleaning and fingerprint resistance
- Flexibility of the novel etching process offers opportunities for custom gloss values
- Both chemical and thermal strengthening are compatible with Xensation™ Cover AG
- Mechanical and strength performance properties of the base glass are not affected by the surface treatment
Thermal Properties

- Thermal Conductivity $\lambda$ (25 °C): 0.96 W/(m•K)
- Specific Heat Capacity $C_p$ (20 °C, 100 °C): 0.84 KJ/(Kg•K)
- Coefficient of Mean Linear Thermal Expansion $\alpha$ (20 °C; 300 °C): $8.8 \times 10^{-6}$ K$^{-1}$
- Transformation Point $T_g$: 615 °C
- Annealing Point (10$^{13}$ dPas): 635 °C
- Softening Point (10$^{7.6}$ dPas): 880 °C
- Working Point (10$^4$ dPas): 1265 °C

*Other sizes on request

Sheet Dimensions

- Sheet Size*: min. 475 x 575 mm
- max. 950 x 680 mm
- Thickness Range: 0.5 - 3.0 mm

Chemical Strengthening

- Compressive Stress capable > 900 MPa
- Depth of Layer capable > 50 µm
- 4-Point Bending Strength cap. > 800 MPa

Optical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Standard</th>
<th>upon request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gloss (at 60 °)</td>
<td>60 (±10)</td>
<td>90 (±10)</td>
</tr>
<tr>
<td>Haze</td>
<td>13 %</td>
<td>7 %</td>
</tr>
<tr>
<td>Clarity</td>
<td>83 - 87 %</td>
<td>88 - 92 %</td>
</tr>
<tr>
<td>Resolution</td>
<td>better than 13 lines per mm</td>
<td></td>
</tr>
<tr>
<td>Non-sparkle effect</td>
<td>more than 5 peaks or etch pits per 100 µm linear</td>
<td></td>
</tr>
</tbody>
</table>

Surface

<table>
<thead>
<tr>
<th>Property</th>
<th>Standard</th>
<th>upon request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gloss (at 60 °)</td>
<td>60 (±10)</td>
<td>90 (±10)</td>
</tr>
<tr>
<td>Surface roughness $R_z$ [µm]</td>
<td>~0.9</td>
<td>~0.7</td>
</tr>
<tr>
<td>Mean Roughness index $R_q$ [µm]</td>
<td>~0.13</td>
<td>~0.15</td>
</tr>
</tbody>
</table>

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 $HK$: 0.1/20
- Non-strengthened: 534
- Strengthened: 639
- Vickers Hardness $HV$: 0.2/20
- Non-strengthened: 617
- Strengthened: 681

*Cooled according to DIN

Different types of surface structuring leading to different optical and touch properties (Source: Berliner Glas)

Influence of gloss on “color brilliance” and image sharpness (Source: Berliner Glas)

in cooperation with

BERLINER GLAS
Technical Glass
Surface Technology

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SCHOTT
glass made of ideas