SCHOTT Xensation™ Touch
Clear Borosilicate Glass for Resistive 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 resistive, capacitive, optical and acoustic. Xensation™ Touch is a thin, clear, borosilicate glass with outstanding resistance to chemical attack and tough environmental conditions for resistive touch technologies. Discover Germany’s newest Xensation™.

Key-Benefits of Xensation™ Touch

- **High transmittance** for bright display luminance
- **Excellent resistance to humidity and smudges**
- **Sleek and lightweight**, with a thickness range starting at 0.03 mm
- **High process stability** for ITO backside coating
- **Fire-polished surface grade**

Xensation™ Touch is produced using SCHOTT’s special down-draw process.

Xensation™ Touch is our solution to resistive touch technologies.

A light touch to the resistive touch screen creates contact between the two conductive layers behind the screen. The exact position is determined by a controller.
### Thermal Properties

- **Coefficient of Mean Linear Thermal Expansion** $\alpha$ (20 °C; 300 °C) $7.2 \cdot 10^{-6}$ K$^{-1}$
- **Transformation Temperature** Tg 557 °C
- **Strain Point** (10$^{14.5}$ dPas) 529 °C
- **Annealing Point** (10$^{13}$ dPas) 557 °C
- **Softening Point** (10$^{7.6}$ dPas) 736 °C
- **Specific Heat Capacity** $c_p$ (20 °C; 100 °C) 0.8 J/(g•K)

### Optical Properties

- **Refractive Indices**
  - $n_e$ ($\lambda = 546$ mm) 1.5255
  - $n_d$ ($\lambda = 588$ mm) 1.5231
- **Abbe Value** $v_e$ 55
- **Luminous Transmittance** $T_{D65}$ (Glass thickness 1.1 mm) 91.7%

### Chemical Properties

- **Hydrolytic resistance acc. to DIN ISO 719**
  - Hydrolytic class HGB 1
  - Equivalent of alkali (Na$_2$O) per gram of glass grains in μg/g 20
- **Acid resistance acc. to DIN 12116**
  - Acid class S 2
  - Half surface weight loss after 6 hours in mg/dm$^2$ 1.4
- **Alkali resistance acc. to DIN ISO 695**
  - Class A 2
  - Surface weight loss after 3 hours in mg/dm$^2$ 88

### Electrical Properties

- **Dielectric Constant** $\varepsilon_r$ at 1 MHz 6.7
- **Dissipation factor** tan $\delta$ at 1 MHz 61 • 10$^{-4}$
- **Electric Volume Resistivity** $\rho_D$ for A.C. at 50Hz
  - $\gamma = 250$ °C 1.6 • 10$^8$ Ω•cm
  - $\gamma = 350$ °C 3.5 • 10$^6$ Ω•cm

### Mechanical Properties

- **Density** annealed at 40 °C/h 2.51 g/cm$^3$
- **Young’s Modulus** E 72.9 kN/mm$^2$
- **Knoop Hardness** HK 0.1/20 590
- **Poisson’s Ratio** 0.208
- **Stress Optical Coefficient** C (1.02 • 10$^{-12}$ m$^2$/N) 3.4
- **Torsion Modulus** G 30.1 kN/mm$^2$

### Sheet Dimensions

- **Nominal Thickness** Width Length
  - [mm] [mm] [mm]
  - 0.03 - 1.1 360 ± 10 / -0 440 ± 10

Following Thicknesses are available [mm] :
- 0.03; 0.05; 0.07; 0.10; 0.145; 0.175; 0.21;
- 0.25; 0.30; 0.40; 0.50; 0.55; 0.70; 0.90; 1.10

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