**Description:**
ZERO-DUR glass ceramic made by Schott is an inorganic, non-porous material made by a process of controlled volume crystallization. This produces a material with an extremely low coefficient of thermal expansion and of the highest homogeneity which makes it ideal for high precision applications.

**Available Thicknesses:** Wide variety – per quotation.

**Properties:**
- **Refractive Index:**
  - nd (λ = 588 nm) = 1.5422
  - ng (λ = 435.8 nm) = 1.5544

**Transmission: (estimated for 5 mm thick)**
- @400 nm 48% @500 nm 80%
- @600 nm 87% @800 nm 91%
- @1400 nm 92% @2857 nm 50%

**Mechanical and Thermal:**
- **Density** 2.53 g/cm³
- **Young’s Modulus at 20° C** 90.3
- **Thermal Coefficient of Expansion** (0-50°C) = 0 ± 0.10 x 10⁻⁶
- **Knoop Hardness (HK 0, 1/20)** 620

**Chemical:**
- **Hydrolytic Resistance (ISO 719-HGB)** Class 1
- **Alkali Resistance (ISO being drafted)** Class 1
- **Acid Resistance (ISO 8424)** Class 1
- **Stain Resistance** Class 0

**Electrical:**
- **Dielectric Constant @ 1 KHz** 8.0
- **Dielectric Loss Factor @ 1 KHz** 29 x 10⁻³
- **Specific Resistivity (Ω cm)**
  - 2.6 x 10¹³ @20°C
  - 3.5 x 10⁷ @200°C
  - 6.6 x 10³ @500°C

**Applications:**
Precision engineering, mirror substrates for large astronomical and x-ray telescopes, optical elements for comet probes, weather satellites, microlithography, frames and mirrors for ring laser gyroscopes.

Flatness, parallelism, cutting tolerances, roughness, cosmetic defects and visual inspection all conform to the specifications to be agreed upon by Precision Glass & Optics and the customer.