

Description:

D 263 is well suited for many applications because of its specific properties and large range of thicknesses. Its special fire-polished surface makes this thin glass able to be used without grinding and polishing. D 263 is a borosilicate glass which is produced by melting the purest raw materials, making it very resistant to chemical attack. This product features tightly held thicknesses, cutting properties, and high light transmission.

Available Thicknesses:

Sheet size: for most thicknesses 14" x 17" is maximum.

| Thickness | Tolerance | Thickness | Tolerance | Thickness | Tolerance |
|-----------|-----------|-----------|-----------|-----------|-----------|
| .050mm | ± .010mm | .300mm | ± .020mm | .900mm | ± .100mm |
| .070mm | ± .010mm | .400mm | ± .020mm | 1.100mm | ± .100mm |
| .100mm | ± .010mm | .550mm | ± .050mm | | |
| .210mm | ± .020mm | .700mm | ± .100mm | | |

Properties:

Refractive Index: $n_d (\lambda = 588\text{nm}) = 1.5230$

Transmission: (estimated at .15 mm thick)

| | | | |
|--------|-----|------------|------|
| @300nm | 10% | @ 350nm | 90% |
| @311nm | 40% | @380-920nm | 91%+ |
| @321nm | 70% | | |

Mechanical and Thermal:

| | |
|--|-----------------------------|
| Density | 2.51 g/cm ³ |
| Young's Modulus | E= 72.9 KN/mm ² |
| Thermal Coefficient of Expansion (0-300°C) | = 72 x 10 ⁻⁷ /°C |
| Strain Point | 529° C |

Chemical:

| Solution | 5% Na OH | N/50 Na ₂ CO ₃ | 5% HCL |
|--------------------------------------|----------|--------------------------------------|--------|
| Temp in (°C) | 95° | 95° | 95° |
| Reaction time (hr) | 6 | 6 | 24 |
| Loss of Weight (mg/cm ²) | 2.1 | 0.05 | 0.02 |

Electrical:

| | |
|---------------------------------|-----------------------------------|
| Dielectric Constant (1 MHz): | $r = 6.7$ |
| Dielectric Loss Factor (1 MHz): | $\tan \delta = 61 \times 10^{-4}$ |

Applications:

Touch control panels, LCDs, electroluminescent displays, solar cells and microscales for measuring devices.

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.

