

**D 263 T is a Borosilicate Glass that is highly resistant to chemical attack**

**Main D 263 T Characteristics**

- Low alkali content
- Excellent chemical resistance
- High luminous transmission
- Excellent flatness
- Fire-polished surfaces

**Dimensions**

- Maximum dimensions: 440 mm (17.32") by 360 mm (14.17")
- Thicknesses: 0.03 mm to 1.1 mm, not all thicknesses are available from stock

**Thermal Properties**

Coefficient of Thermal Expansion (Static Measurement, 20-300° C.) •  $7.2 \times 10^{-6}$ °K

<b>Designation</b>	<b>Viscosity log [dPas]</b>	<b>Temperature [°C]</b>
Strain Point	14.5	529
Annealing Point	13.0	557
Softening Point	7.6	736
Transformation Temperature		557

**Mechanical Properties**

Density (annealed @ 40°C/h)	2.51 (g/cm <sup>3</sup> )
Stress Optical Coefficient C	3.4 ( $1.02 \times 10^{-12}$ m <sup>2</sup> /N)
Young's Modulus E	72.9 (kN/mm <sup>2</sup> )
Poisson's Ratio $\nu$	0.208
Torsion Modulus G	30.1 (kN/mm <sup>2</sup> )
Knoop Hardness HK <sub>100</sub>	590

**Chemical Properties**

Hydrolytic Resistance according to DIN ISO 719	
• Hydrolytic Class	HGB 1
• Equivalent Alkali (Na <sub>2</sub> O) per gram of glass grains	20 (µg/g)
Acid Resistance according to DIN 12116	
• Acid Class	2
• Half surface weight loss after 6 hours	1.4 (mg/dm <sup>2</sup> )
Acid Resistance according to DIN ISO 695	
• Class	A2
• Surface weight loss after 3 hours	88 (mg/dm <sup>2</sup> )

**Electrical Properties**

Dielectric Constant (Permittivity) $\epsilon_r$	6.7 (@ 1 MHz)
Dielectric Loss Factor $\tan \delta$ at 1MHz	$61 \times 10^{-4}$
Electrical Volume Resistivity $\rho_v$ (DC)	
$\Theta = 250^\circ\text{C}$	$1.6 \times 10^8 (\Omega \cdot \text{cm})$
$\Theta = 350^\circ\text{C}$	$3.5 \times 10^6 (\Omega \cdot \text{cm})$

**Optical Properties**

**Refractive Indices**

ng	1.5354
nF'	1.5305
nF	1.5300
ne	1.5255 ± 0.0015
nd	1.5231
nD	1.5230
nC'	1.5209
nC	1.5204

**Abbe Value**

ve	55
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**Transmission**

Individual values T<sub>λ</sub> (Thickness of material = 1.1 mm)

@ 380 nm	89.8 %
@ 632.8 nm	91.8 %
@ 1064 nm	92 %

**Transmittance [%] Spectral Transmittance of D 263 T, t=1.1**

