Schott D 263 T Borosilicate Glass

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 x 10^{-6} °K

Designation	Viscosity log _ [dPas]	Temperature [° C]
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$^{3)}$
Stress Optical Coefficient C	3.4 (1.02 x 10^{-12} m^2/N)
Young’s Modulus E	72.9 (kN/mm^2)
Poisson’s Ratio _	0.208
Torsion Modulus G	30.1 (kN/mm^2)
Knoop Hardness HK_{100}	590

Chemical Properties

Hydrolytic Resistance according to DIN ISO 719	
Hydrolytic Class	HGB 1
Equivalent Alkali (Na_2O) per gram of glass grains	20 (_g/g)
Acid Resistance according to DIN 12116	
Acid Class	2
Half surface weight loss after 6 hours	1.4 (mg/dm^2)
Acid Resistance according to DIN ISO 695	
Class	A 2
Surface weight loss After 3 hours	88 (mg/dm^2)

Electrical Properties

Dielectric Constant (Permissivity) E_r	6.7 (@ 1 MHz)
Dissipation Factor tan _	61 x 10^{-4} (@ 1 MHz)
Electrical Volume Resistivity $_D$ (DC)	
@ _ = 250° C	1.6 X 10^{8} (_ cm)
@ _ = 350° C	3.5 X 10^{6} (_ cm)

Optical Properties

Refractive Indices

n_g	1.5354
$n_{F'}$	1.5305
n_F	1.5300
n_e	1.5255 +/- 0.0015
n_d	1.5231
n_D	1.5230
$n_{C'}$	1.5209
n_C	1.5204

Abbe Value

v_e	55

Transmission

Individual values t_ (Thickness of material = 1.1 mm)

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