

Glass 8347

Technical Data

Glass Type/Application	Borosilicate glass 3.3 acc. to DIN ISO 3585, chemically highly resistant, high thermal shock resistance, high UV-transmittance.		
Physical Data (approx. value)	Coefficient of mean linear thermal expansion $\alpha(20^{\circ}\text{C}; 300^{\circ}\text{C})$ (ISO 7991) 3.3 10^{-6}K^{-1}		
	Transformation temperature T_g (ISO 7884-8) 525 $^{\circ}\text{C}$		
	Glass temperature at viscosity η in dPa·s		
	10^{13} (annealing point) (ISO 7884-4) 560 $^{\circ}\text{C}$		
	$10^{7.6}$ (softening point) (ISO 7884-3) 825 $^{\circ}\text{C}$		
	10^4 (working point) (ISO 7884-2) 1260 $^{\circ}\text{C}$		
	Stress-optical coefficient K (DIN 52314) 4.0 $10^{-6}\text{mm}^2\cdot\text{N}^{-1}$		
	Density ρ at 25°C 2.23 $\text{g} \cdot \text{cm}^{-3}$		
	Modulus of elasticity E (Young's modulus) 63 $10^3\text{N} \cdot \text{mm}^{-2}$		
	Poisson's ratio μ 0.2		
	Thermal conductivity λ_w at 90°C 1.2 $\text{W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$		
	Log of the electric volume resistivity ($\Omega\cdot\text{cm}$)		
	at 250°C 8.0		
	at 350°C 6.5		
	t_{k100} (DIN 52326) 250 $^{\circ}\text{C}$		
	Dielectric constant ϵ for 1 MHz at 25°C 4.6		
Dielectric loss factor $\tan d$ for 1 MHz at 25°C 37 10^{-4}			
Refractive index n_d ($\lambda = 587.6 \text{ nm}$) 1.473			
Chemical Resistance	Hydrolytic resistance (ISO 719)	Class	HGB 1
	Acid resistance (DIN 12116)	Class	S1
	Alkali resistance (ISO 695)	Class	A2
The heavy metal content for the elements lead, cadmium, mercury and hexavalent chromium is below 100 ppm.			