

Glass 8100

Technical Data

GlassType/Application	Lead glass (33.5 % PbO), electrically highly insulating highly x-ray-absorbing TV tubes		
Physical Data (approx. value)	Coefficient of mean linear thermal expansion		
	$\alpha(20^{\circ}\text{C}; 300^{\circ}\text{C})$ (ISO 7991)	9.6	10^{-6}K^{-1}
	Transformation temperature T_g (ISO 7884-8).....	465	$^{\circ}\text{C}$
	Glass temperature at viscosity η in $\text{dPa}\cdot\text{s}$		
	10^{13} (annealing point) (ISO 7884-4).....	465	$^{\circ}\text{C}$
	$10^{7.6}$ (softening point) (ISO 7884-3).....	655	$^{\circ}\text{C}$
	10^4 (working point) (ISO 7884-2).....	960	$^{\circ}\text{C}$
	Stress-optical coefficient K (DIN 52314).....	-	$10^{-6}\text{mm}^2\cdot\text{N}^{-1}$
	Density ρ at 25°C	3.28	$\text{g}\cdot\text{cm}^{-3}$
	Modulus of elasticity E (Young's modulus)	-	$10^3\text{N}\cdot\text{mm}^{-2}$
	Poisson's ratio μ	-	
	Thermal conductivity λ_w at 90°C	-	$\text{W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$
	Log of the electric volume resistivity ($\Omega\cdot\text{cm}$)		
	at 250°C	-	
	at 350°C	-	
	t_{k100}	-	$^{\circ}\text{C}$
	Dielectric constant ε for 1 MHz at 25°C	-	
	Dielectric loss factor $\tan \delta$ for 1 MHz at 25°C	-	10^{-4}
	Refractive index n_d ($\lambda = 587.6 \text{ nm}$)	1.595	
Chemical Resistance	Hydrolytic resistance (ISO 719)	Class	HGB 3
	Acid resistance (DIN 12116)	Class	-
	Alkali resistance (ISO 695)	Class	-