

Glass Type/Application	Neutral glass tubing, chemically highly resistant, with light protection Pharmaceutical primary packaging	
Physical Data (approx. value)	Coefficient of mean linear thermal expansion $\alpha(20^{\circ}\text{C}; 300^{\circ}\text{C})$ acc. to ISO 7991 $5.4 \cdot 10^{-6} \text{K}^{-1}$ Transformation Temperature T_g $550 \text{ }^{\circ}\text{C}$ Glass temperature at viscosity η in $\text{dPa} \cdot \text{s}$ 10^{13} (annealing point)..... $560 \text{ }^{\circ}\text{C}$ $10^{7.6}$ (softening point) $770 \text{ }^{\circ}\text{C}$ 10^4 (working point) $1165 \text{ }^{\circ}\text{C}$ Density ρ at 25°C $2.42 \text{ g} \cdot \text{cm}^{-3}$	
Chemical Data	Hydrolytic resistance acc. to ISO 719 Class HGB 1 acc. to Ph. Eur. Type I acc. to USP..... Type I acc. to JP..... fulfilled Acid resistance (DIN 12116) Class S 1 Alkali resistance (ISO 695) Class A 2	
Chemical Composition (main components in approx. weight %)	SiO ₂ B ₂ O ₃ Al ₂ O ₃ Fe ₂ O ₃ TiO ₂ Na ₂ O K ₂ O BaO CaO 70 7.5 6 1 5 6.5 1 2 < 1 The heavy metal content for the elements lead, cadmium, mercury and hexavalent chromium is below 100 ppm.	

Transmission
(exemplary spectrum)

