FIOLAX® clear

Technical Data

Glass Type/Application	Neutral glass tubing, chemically highly resistant Pharmaceutical primary packaging

Physical Data (approx. value)

Coefficient of mean linear thermal expansion

α(20°C; 300°C) acc. to ISO 7991	4.9 · $10^{-6}K^{-1}$	
Transformation Temperature T_g	565	°C
Glass temperature at viscosity η in dPa · s		
10^{13} (annealing point)	565	°C
$10^{7.6}$ (softening point)	785	°C
10^{4} (working point)	1160	°C
Density ρ at 25°C	2.34	g · cm^{-3}

Chemical Data

Hydrolytic resistance

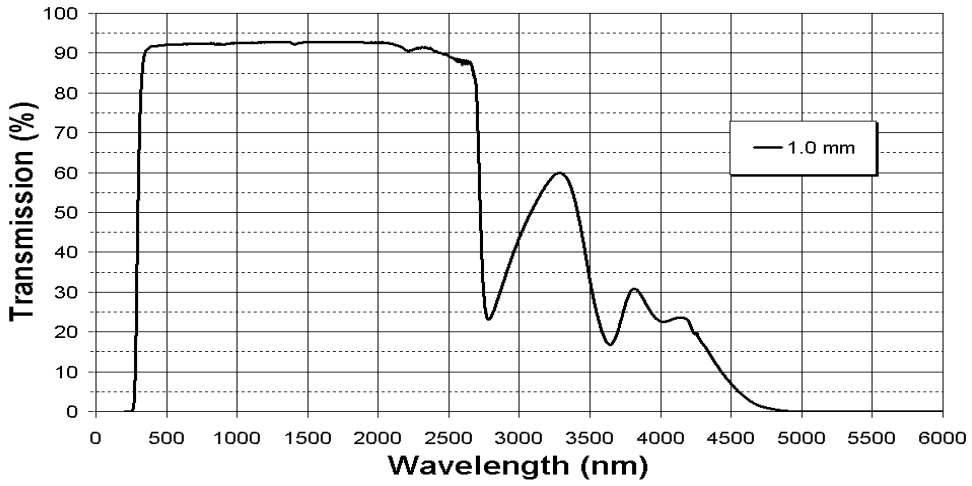
acc. to ISO 719	Class	HGB 1
acc. to Ph. Eur.	Type	I
acc. to USP	Type	I
acc. to JP	fulfilled	
Acid resistance (DIN 12116)	Class	S 1
Alkali resistance (ISO 695)	Class	A 2
ASTM E 438	Type I	Class B

Chemical Composition (main components in approx. weight %)

SiO_2	B_2O_3	Al_2O_3	Na_2O	CaO
75	10.5	5	7	1.5

The heavy metal content for the elements lead, cadmium, mercury and hexavalent chromium is below 100 ppm.

Transmission (exemplary spectrum)



PT_TTS_1001 GB
Business Unit Tubing / 9/2017

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