

## Chemical and physical properties

Microscope slides made of soda lime glass 1 mm

Tolerance of thickness: 0.95-1.05 mm

Typical composition (% in weight)	
SiO <sub>2</sub>	72.3 %
Al <sub>2</sub> O <sub>3</sub>	0.5 %
Fe <sub>2</sub> O <sub>3</sub>	<0.02 %
Na <sub>2</sub> O	13.3 %
CaO	8.8 %
K <sub>2</sub> O	0.4 %
MgO	4.3 %

Optical properties	
Typical light transmittance (TL) % acc. to EN 410 & ISO 9050	91.7
Typical solar direct transmittance (Te) % acc. to EN 410	91.6
Mean refractive index to visible radiation (at 589.3 nm)	n 1.5

Mechanical properties	
Density (at 18 °C)	ρ 2500 kg/m <sup>3</sup>
Hardness (Knoop, acc. to ISO 9385)	HK <sub>0,1/20</sub> 6 GPa
Young's modulus	E 7x10 <sup>10</sup> Pa
Poisson's ration	μ 0.2

### Thermic properties

Nominal value of average coefficient of linear expansion (20 °C; 300 °C)	$\alpha$	9x10 <sup>-6</sup> /K
Thermal conductivity	$\lambda$	1 W/(mK)
Strain point (10 <sup>14.5</sup> Poise)	T	525 °C
Upper annealing point (10 <sup>13.0</sup> Poise)	T	555 °C
Softening point (10 <sup>7.6</sup> Poise)	T	725 °C

### Chemical properties

Alkaline resistance (ISO 695)	Class 2
Acid resistance (ISO 8424)	Class 3
Hydrolytic resistance (ISO 719)	Class 3