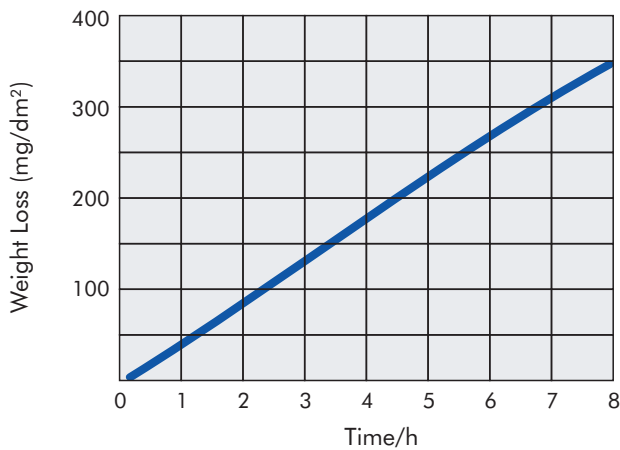


Chemical Resistance acc. to Standards

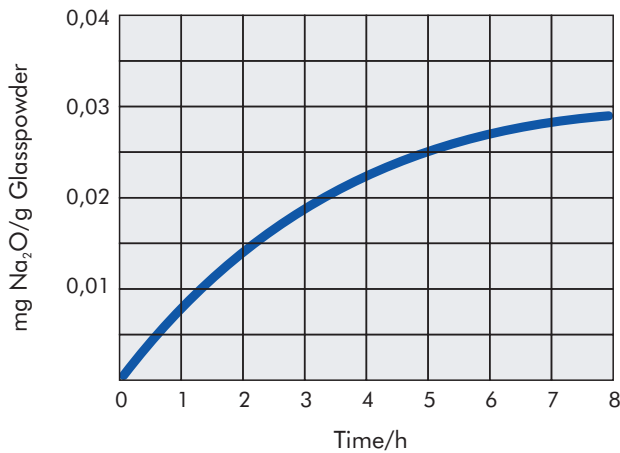
Borosilicate Glass 3.3 is highly resistant to water, acid solutions, concentrated acids, chlorine, bromine, iodine and organic substances. Only hydrofluoric acid, solutions, hot phosphoric acid and alkaline solutions attack the surface of the glass. The degree of attack is increasing as the concentration and temperature rise.



Alkali Resistance

Borosilicate Glass 3.3 is specified as alkali resistant acc. to DIN 52322, ISO 695, in class: ISO 695-A2

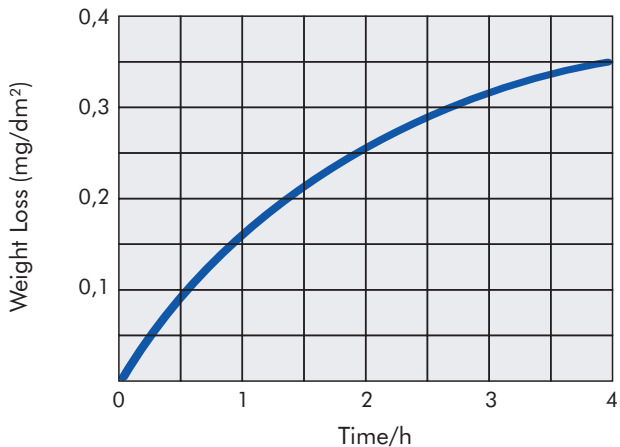
After boiling the firepolished surface in a mixture comprising equal parts by volume of sodium hydroxide solution (1 mol/l) and sodium carbonate solution for 3 hours, a weight loss of 134 mg/dm² is measured.



Hydrolytic Resistance

Borosilicate Glass 3.3 is specified as resistant to water acc. to DIN 12111, ISO 719, in hydrolytic class ISO 719-HGB 1

In the test only 0.026 ml HCl (0.01 mol/l) is dissipated from 1g of glass powder after being held in water at 98 °C for one hour. This corresponds to an alkali weight loss of 0.008 mg Na₂O.



Acid Resistance

Borosilicate glass 3.3 is specified as acid resistant acc. to DIN 12116 in acid class 1.

In the test on the fire polished surface, a weight loss of only 0.3 mg/dm² is measured after boiling for three hours in hydrochloric acid (18%).