

## Conformity with Standards

DURAN®

- ISO 3585 Borosilicatglass 3,3
- glass type 1, neutral glass as per USP 27, EP, DAB 10 (as it is hydrolytic class 1 – see below)
- suitable for foodstuff

## Chemical Properties

Chemical Composition

81% Si O<sub>2</sub>  
 13% B<sub>2</sub> O<sub>3</sub>  
 4% Na<sub>2</sub> O/K<sub>2</sub> O  
 2% Al<sub>2</sub> O<sub>2</sub>  
 no additive of heavy metal

Classes of Chemical Resistance

- hydrolytic resistance class 1, DIN ISO 720
- acid resistance class 1, DIN 12116
- alkali resistance class 2, ISO 695

## Physical Properties

Transformation Temperature

525 [°C]

Coefficient of Expansion

$\alpha$  (20 until 300°C)

3,3 [10<sup>-6</sup>/K<sup>-1</sup>]

Density at 25°C

2,23 [g/cm<sup>3</sup>]

Thermal Conductivity  $\lambda$  at 90°C

1,2  $\frac{W}{m \cdot K}$

Coefficient of Elasticity

63 [10<sup>3</sup>N/mm<sup>2</sup>]

Specific Heat Capacity

0,8 [J/g·K]

$c_p$  (20 until 100°C)

Stressoptical Coefficient K

4,0 [10<sup>-6</sup>mm<sup>2</sup>/N]

## Optical Properties

- transparent in the spectral range
- from 310 to 2200 nm light wave length, with minimal absorption (please refer to Duran® laboratory glassware catalogue)

## Instructions for use

Max. working temperature

- Duran® laboratory glass generally 500°C
- Duran® volumetric products (volumetric flasks, cylinders etc.) 180°C

Max. negativ temperature

-70°C

Max. temperature variation

$\Delta T$  100K

Use in microwave oven

Yes, possible

Use under pressure or vacuum

No, unless clearly stated in catalogue for product in question. Make sure that product is in immaculate condition.

Cleaning of Duran® laboratory glass  
 in alkali detergent

- max. residence time 30 minutes
- max. temperature during cleaning process 70°C

**Note:** For further detailed technical information and instructions of use, please refer to the DURAN Labglass catalogue or to our website [www.schott.com/duran](http://www.schott.com/duran).

SCHOTT AG  
 Labware

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