

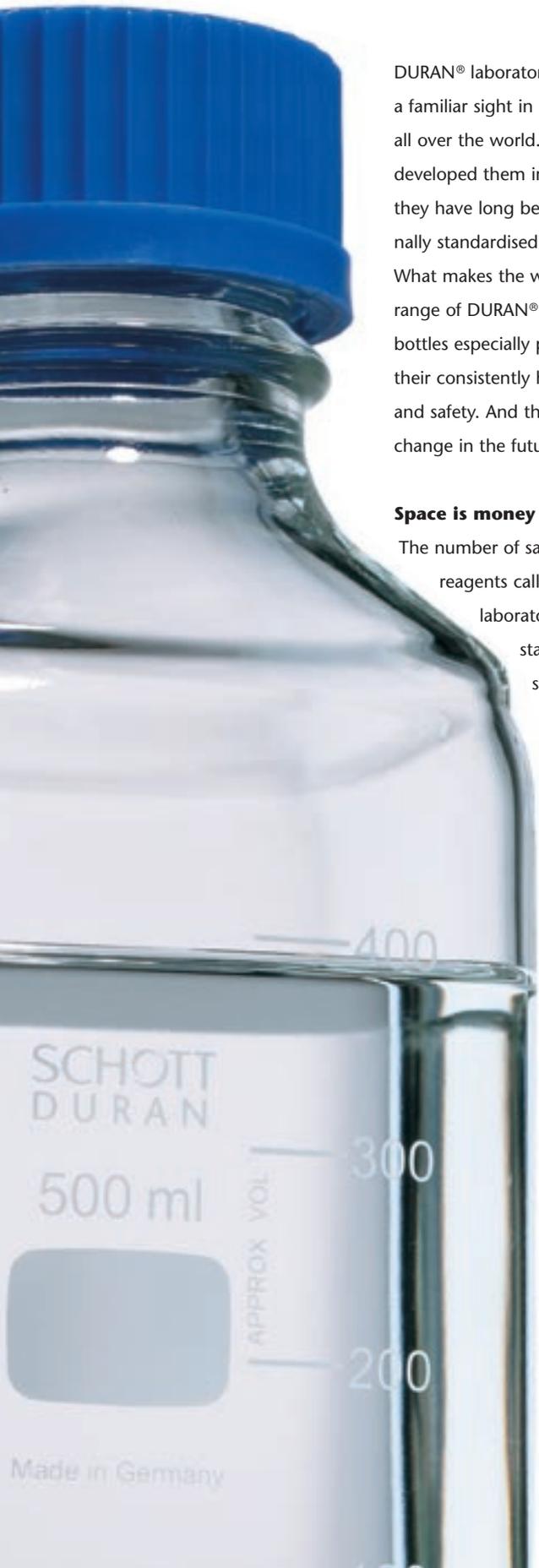
DURAN®

Square Bottle

SCHOTT
in the Lab
LABGLASS

SCHOTT
glass made of ideas

DURAN® square bottles by Schott Glas



DURAN® laboratory bottles are a familiar sight in laboratories all over the world. Schott Glas developed them in 1972 and they have long been internationally standardised to ISO 4796. What makes the wide product range of DURAN® laboratory bottles especially popular is their consistently high quality and safety. And that will not change in the future either.

Space is money

The number of samples and reagents called for in laboratories is constantly increasing and this is creating an ever greater shortage of resources on shelves, in refrigerators, in autoclaves and during transportation.

To enable better use to be made of this valuable space in the future, Schott Glas now presents DURAN® square bottles.

The square as the basic geometrical shape of DURAN® laboratory bottles saves space without having to forego the high quality of DURAN® borosilicate glass and its outstanding properties as regards resistance to chemical attack and thermal shock.

There are four sizes of DURAN® square bottles: 100 ml, 250 ml, 500 ml and 1000 ml.

The saving in shelf space that can be achieved by using DURAN® square bottles can be seen from the comparison below of the area taken up by each size of bottle:

	DURAN® laboratory bottle	DURAN® square bottle	
Size	Space required per bottle	Space required per bottle	Space saving per bottle
100 ml	3136 mm ²	2500 mm ²	20,3%
250 ml	4900 mm ²	4096 mm ²	16,4%
500 ml	7396 mm ²	6084 mm ²	17,7%
1000 ml	10201 mm ²	8836 mm ²	13,4%



Space is money in many areas of application. For example when sterilising. A sterilisation cycle with an autoclave or a hot air steriliser incurs significant operating costs and ties up personnel. With the improved usage of space with DURAN® square bottles, productivity goes up and sterilisation costs per bottle come down.

In the table below, we have compared the number of round DURAN® laboratory bottles and the number of DURAN® square

bottles that can be handled per size in a standard sterilisation unit (SU) to DIN 58 946:

Size	DURAN® laboratory bottle		DURAN® square bottle	
	Number of bottles	Number of bottles	Number of bottles	Space saving per SU
100 ml	50	72	44 %	
250 ml	32	36	13 %	
500 ml	18	21	17 %	
1000 ml	15	18	20 %	

Many good qualities

DURAN® square bottles can help you to think of all the applications in which DURAN® square bottles can be of more use to you than other types of bottle, we summarise below

the main benefits of DURAN® square bottles for you:

- ▶ DURAN® borosilicate glass 3.3
- ▶ High resistance to thermal shock
- ▶ Extremely resistant to chemical attack (hydrolytic resistance class 1, acid resistance class 1, alkali resistance class 2)



- ▶ Highly inert (glass type I to DAB 10, European Pharmacopoeia and USP 23)
- ▶ First class processing quality
- ▶ Sterilisable up to 140 °C*
- ▶ Slight convex curvature of the square sides permits good convection during sterilisation since the bottles are only in contact with each other along a line
- ▶ Temperature limit for freezing: -40 °C**
- ▶ Easy to clean as no sharp edges and brushes and apparatus washers can reach every part
- ▶ Impact resistance comparable to round DURAN® laboratory bottles
- ▶ Easy to handle (fit the hand, no problem to write on)
- ▶ UV absorption up to about 310 nm

- ▶ DIN GL screw thread
- ▶ Optimised closure system with lip seal (leakage rate $1 \cdot 10^{-4}$ mbar · l/s) facilitates sterile storage
- ▶ Pouring ring eliminates drips
- ▶ Screw cap and pouring ring made of chemically resistant and food quality polypropylene (PP) approved by BGA and FDA
- ▶ Pouring rings and screw caps compatible with round DURAN® laboratory bottles
- ▶ Printed graduation and labelling panel
- ▶ Moulded bead on shoulder indicates nominal capacity level
- ▶ Base dimpled to prevent slipping
- ▶ Highly stable

* Important: When sterilising, the screw cap should be left loose (one turn maximum) on the bottle neck to avoid setting up differential pressure which could break the glass.

** When freezing, place the bottles at an angle (approximately 45 °) and do not fill to more than 3/4 capacity (increased surface area).

Technical data and ordering information

Where available?

From any good laboratory dealer of course. If you require any further information about our DURAN® laboratory glass-

ware range, please contact us.

We will be happy to send you the latest edition of the DURAN® laboratory glassware catalogue.

DURAN® is a registered trademark of the Schott Group.

Art. No.	Capacity ml	Screw thread GL	Side width mm	Height mm	Quantity per carton
21 820 245	100	32	50	109	10
21 820 365	250	45	64	143	10
21 820 445	500	45	78	181	10
21 820 545	1000	45	94	222	10



All DURAN® square bottles are supplied complete with blue pouring ring and blue screw cap made of PP.

SCHOTT GLAS

Postfach 2480
D-55014 Mainz
Hattenbergstraße 10
D-55122 Mainz
Germany
Internet <http://www.schott-in-the-lab.com>

Geschäftsbereich Industrieglas
Laborgeschäft

Telephone +49 (0) 61 31/66-49 07
Telefax +49 (0) 61 31/66-40 51

SCHOTT
glass made of ideas