

GLASS FILTRATION APPARATUS AND ACCESSORIES

Due to their high chemical and thermal shock resistance DURAN® filters and the corresponding filter plates are ideal for separations, e. g. with strong acids or alkalis. Thus they offer advantages in comparison with other materials such as plastic or paper: DURAN® filter products have a maximum operating temperature of +450 °C and are therefore far superior to other materials.

The corresponding filtration vessels are specially optimised to the matching filtration apparatus and are vacuum-tight due to their special geometry and high wall thickness. This characteristic has been approved by the German TÜV and marked with the "GS"-indication.

The glass filters are classified as being in porosity classes 0 to 5 according to their nominal maximum pore size. The following table shows the corresponding porosity range. The specified pore sizes always relate to the largest pore in the plate. This specification also characterises the minimum nominal size of particles which may be retained by the filtration.

Porosity table:

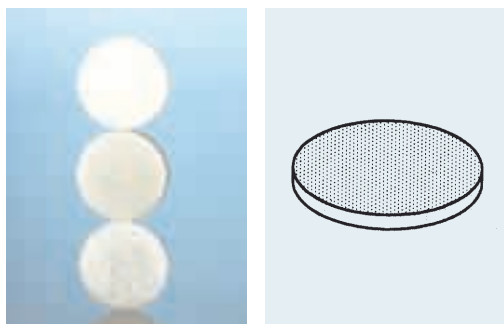
ISO 4793		
Porosity	Nominal max. pore size µm	Areas of application
0 P 250	160 – 250	Gas distribution
1 P 160	100 – 160	Dispersion of gas in liquids
2 P 100	40 – 100	Preparative fine filtration
3 P 40	16 – 40	Analytical filtration
4 P 16	10 – 16	Analytical fine filtration
5 P 1.6	1.0 – 1.6	Ultrafine filtration

ASTM E128-99		
Porosity	Nominal max. pore size µm	Areas of application
EC Extra Coarse	170 – 220	Gas distribution
C Coarse	40 – 60	Dispersion of gas in liquids
M Medium	10 – 16	Preparative fine filtration
F Fine	4.0 – 5.5	Analytical filtration
VF Very Fine	2.0 – 2.5	Analytical fine filtration
UF Ultra Fine	0.9 – 1.4	Ultrafine filtration

Usage tips:

- The maximum permissible operating temperature is +450 °C.
- Uniform heating is recommended to avoid thermal stresses and resultant breakages.
- Heat glass filtration apparatus with disk diameters of more than 20 mm in initially cold ovens or sterilisers only.
- The heating or cooling rate should not exceed 8 °C/min.
- When filtering hot substances observe the thermal shock resistance and, if necessary, preheat the filtration apparatus in a drying cabinet.
- Wet filtration apparatus should be heated slowly up to +80 °C and dried for one hour before increasing the temperature further.

05



FILTERPLATTEN
Rand unverschmolzen und zentriert,
Oberflächen unbearbeitet

FILTER DISCS
sintered glass, edge not fused, centred, surfaces untreated

PLAQUES FILTRANTES
bord non rebrûlé et centré, surfaces brutes

PLACAS FILTRANTES
borde sin requemar y centrado, superficies no tratadas

Best.-Nr. Cat. No.	Porosität Porosity	d mm	Verpackungseinheit/ Stück Pack/Quantity
25 151 0X ¹	0-5	10	10
25 152 0X ¹	0-5	20	10
25 152 5X ¹	0-5	25	10
25 153 0X ¹	0-5	30	10
25 154 0X ¹	0-5	40	10
25 155 0X ¹	0-5	50	5
25 155 5X ¹	0-5	55	1
25 156 0X ¹	0-5	60	1
25 156 5X ¹	0-5	65	1
25 157 0X ¹	0-5	70	1
25 158 0X ¹	0-5	80	1
25 159 0X ¹	0-5	90	1
25 160 0X ¹	0-5	100	1
25 162 0X ¹	0-5	120	1

¹ In die Best.-Nr. ist statt X die gewünschte Porosität einzusetzen, siehe auch Seite 194 im DURAN® Laborglaskatalog.

¹ The required porosity should be inserted in place of X in the catalogue number, also see page 222 in the DURAN® Laboratory glassware catalogue.

¹ Dans le numéro d'article, remplacer X par le porosité voulue, voir aussi page 200 dans le DURAN® Catalogue de verrerie de laboratoire.

¹ Reemplazar en el código de artículo la X por la porosidad deseada ver página 228 en el DURAN® Catálogo para material de laboratorio.

Porosität Porosity	0	1	2	3	4	5
Kennzeichnung Identification mark ISO 4793	P 250	P 160	P 100	P 40	P 16	P 1.6
Nennwert max. Porenweite (µm) Nominal max. pore size (µm)	160-250	100-160	40-100	16-40	10-16	1.0-1.6

Zwischengrößen, abweichende Abmessungen auch über 120 mm Durchmesser und Porositäten sowie die Ausführung biplan auf Nachfrage.

Intermediate sizes, alternative dimensions, even greater than 120 mm diameter, and alternative porosities as well bi-planar design upon request.

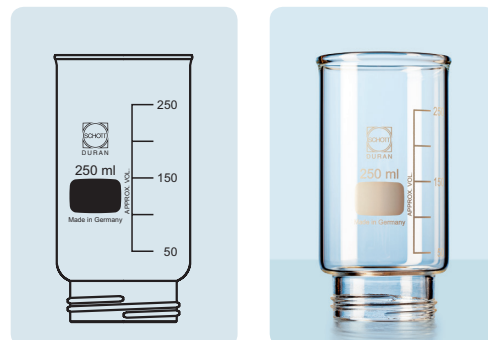
Tailles intermédiaires, dimensions divergentes de diamètre au-delà de 120 mm, porosités divergentes ainsi que modèle biplan, disponibles sur demande.

Bajo demanda suministramos tamaños intermedios, dimensiones – incluso superiores a 120 mm de diámetro – y porosidades no estándar, así como un tipo biplano.

Cat. No.	Capacity (mL)	Thread	Pack Unit
247212408	30	28	
247215002	250	54	
247219004	1 000	95	

DURAN® Filter Head

threaded



From DURAN® glass with its good thermal shock and chemical resistance. Fused glass rim.

DURAN® Filter Disk

with fused glass rim

Cat. No.	Porosity	Pack Unit
Plate: d = 24 mm		
252024104	1	
252024207	2	
252024301	3	
252024404	4	
Plate: d = 50 mm		
252050105	1	
252050208	2	
252050302	3	
252050405	4	
Plate: d = 90 mm		
252090109	1	
252090203	2	
252090306	3	
252090409	4	



Cat. No.	Disc d (mm)	Pack Unit
292202408	24	10
292205002	50	10
292209004	90	10

FKM Seals for Filter Disks

