

FILTERING with PE-porös from KIK

Under the brand name **PE-porös**, KIK offers filter elements made of porous polyethylene (HDPE/ UHMWPE), for use both in liquid and gas filtration.

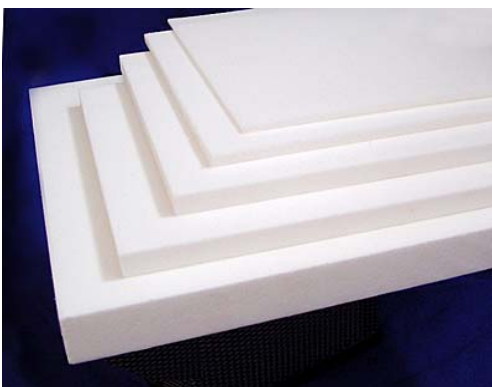
For use in filtering equipment of all kinds, we manufacture filter media in almost any geometry wanted, and in a wide range of filtration grades, from 1 µm to far over 100 µm.



Filter tubes and made-up elements



Shaped parts to customer specifications



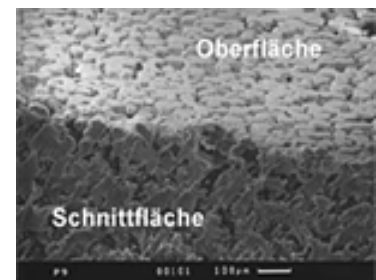
Filter plates, items cut to size, punched parts etc.

PE-porös is **manufactured** by a special sintering process, in which the granules of plastic are heated until their surfaces soften, and fuse at the contact faces, while retaining more or less their original shape. The shaped body created thus has open continuous pores, whose size and number depends on the sintering conditions and the size of the polymer particles selected.

The pore size is mainly determined by the size and shape of the plastic granules employed. Sintered filters do not possess a uniform pore size; instead, they have a spectrum of pore sizes similar to a normal distribution. In order to characterize

them, KIK states mean pore widths that correspond to the maximum of this distribution. A quality feature of a filter is a narrow distribution of pore sizes. The largest pores in PE-porös can be assumed to be roughly 30% to 50% larger than the mean pore size.

SEM >



The fineness of the filter depends on the pore size, but does not correspond to it; it is sometimes considerably smaller. Depending on the application, sintered filters are a combination of surface and depth filters, in which three separation mechanisms are active in principle:

- sieving action
- inertial impingement
- adsorption

One measure of the sieving effect is the largest pore; due to inertial impingement and diffusion, even particles that are considerably smaller than the mean pore size are retained.

Thus, grades of filtration up to five times finer than the pore width can be achieved in liquid filtration, and even up to ten times finer in gas filtration.

The **recognized physiological safety** permits the use of filter elements made of PE-porös also in the food and drinking water industry.

Thanks to the **superb chemical stability** PE-porös is well suited for the cleaning of chemicals and solvents as wells for the recovery of valuable substances, like catalysts.

FILTRATION of Liquids and Gases with PE-porös from KIK

Material: HDPE (UHMWPE)
Operating temp.: 70°C
Pore size: 10, 20, 40 and 80 µm
Filter fineness: up to < 1 µm

Filter classes: DIN EN 60335 - Class M
 EN 1822 – Class H 10

Conformity: FDA, VO 10/2011/EU

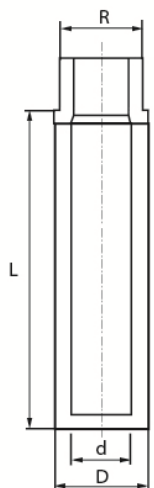
FILTER TUBES



L in mm	D in mm	d in mm	Item number	Price Euro /piece
1000	28	20	A2XA100	48.00
	30	15	A2XB000	55.00
	31	25	A2XB200	51.50
	40	30	A2XC000	59.50
	50	40	A2XD000	62.50
	50	30	A2XE000	76.50
	60	50	A2XF000	65.50
	60	40	A2XG000	79.00
	70	60	A2XH000	68.50
	70	40	A2XK000	99.00
	98	88	A2XL600	109.00
	122	98	A2XL000	172.00



FILTER CANDLES



L in mm	D in mm	d in mm	Connection fitting	Item number	Price Euro /piece
250	28	20	R 1/2"	A6XA250	30.00
	40	30	R 3/4"	A6XC250	32.00
	50	40	R 1"	A6XD250	40.50
	70	60	R 2"	A6XH250	54.00
500	28	20	R 1/2"	A6XA500	47.00
	40	30	R 3/4"	A6XC500	49.50
	50	40	R 1"	A6XD500	59.00
	70	60	R 2"	A6XH500	74.50
750	28	20	R 1/2"	A6XA750	64.50
	40	30	R 3/4"	A6XC750	68.50
	50	40	R 1"	A6XD750	79.00
	70	60	R 2"	A6XH750	94.50
1000	28	20	R 1/2"	A6XA000	76.00
	40	30	R 3/4"	A6XC000	80.50
	50	40	R 1"	A6XD000	93.00
	70	60	R 2"	A6XH000	111.00



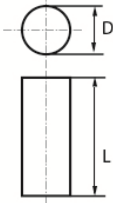

FILTER CARTRIDGES antistatic

L in mm	D in mm	d in mm	Connection fitting	Item number	Price Euro /piece
500	50	40	R 1"	A6XD500A	74.50
	70	60	R 2"	A6XH500A	92.50
1000	50	40	R 1"	A6XD000A	116.00
	70	60	R 2"	A6XH000A	139.00

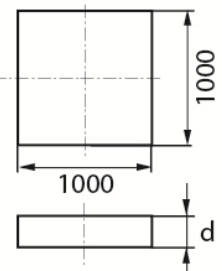



PE-porös AST (FDA)

FILTER TUBES / CAPILLARIES

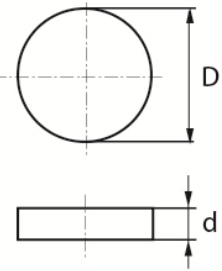

	L in mm	D in mm	Item number	Price Euro /piece	
	1000	10	A8XA600	56.00	
	15	A8XA800	61.50		
	20	A8XA000	70.00		
	30	A8XB000	90.50		
	40	A8XC000	110.00		

FILTER PLATES

	L x B in mm	d in mm	Item number	Price Euro /Stück	
	1000 x 1000	2	A1XB000	205.00	
	3	A1XC000	216.00		
	4	A1XD000	230.00		
	5	A1XE000	245.50		
	6	A1XF000	264.00		
	8	A1XH000	284.00		
	10	A1XK000	311.00		
	20	A1XU000	493.00		

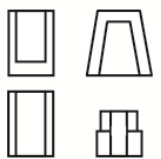

Multiple-layer filter plates with different pore sizes available on request.

FILTER DISCS

	D in mm	d in mm	VE in Stück	Item number	Preis Euro /PU	
	6	2	1.000	A1XBS06	64.50	
6	3	1.000	A1XCS06	68.00		
9	2	1.000	A1XBS09	98.00		
9	3	1.000	A1XCS09	103.50		
12	2	500	A1XBS12	86.00		
12	3	500	A1XCS12	92.00		
25	2	250	A1XBS25	118.00		
25	3	250	A1XCS25	131.00		

PE frits and pressure equalization elements. Further punched parts to customer specifications.

FILTER SHAPED PARTS

	Shapes sintered to customer specifications	
	<ul style="list-style-type: none"> • High degree of design freedom • Integratable connection functions or welded-on connecting parts • Short turnaround times for small parts • Small batches also available 	

APPLICATIONS

Filtration	Particle filters, gas filters, water filters, fuel filters, oil filters, sensor protection filters, pipette filter tips, frits for chromatography.
Ventilation	Ventilation plugs for hazardous substance canisters, battery vents, spark and flame protection, diffusers for bath agitators and solvent separation, suction plates, and air-cushion disks.
Storage	Fragrance dispensers, deodorant applicators, care products, inks (write wicks).
Sound Absorption	Pneumatic mufflers, shock absorbers for sensors.

Further applications for surface-modified products (hydrophilic, hydrophobic, antibacterial, antistatic), and filled products (activated carbon, molecular sieves, oil binders, etc.).

Prices:

- ex-works, unpacked
- quantity discounts available on request