

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.

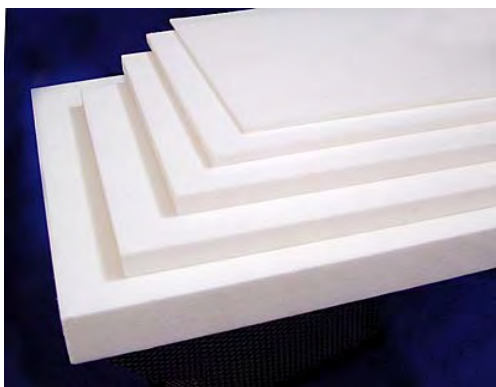
For use in filtering equipment of all kinds, we manufacture filter media in almost any geometry wanted, and in a wide range of filtration grades, from 1 µm to far over 100 µm.



Filter tubes and made-up elements



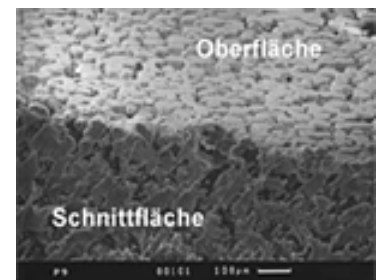
Shaped parts to customer specifications



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

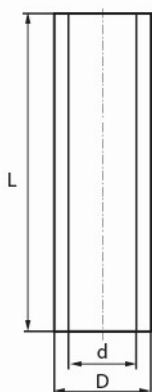
Material: HDPE (UHMWPE)
Operating temp.: 70°C
Pore size: 10, 20, 40 and 80 µm
Filter fineness: up to < 1 µm

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

Conformity: FDA, VO 10/2011/EU

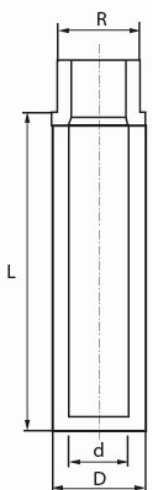
FILTER TUBES

L in mm	D in mm	d in mm	Item number	Price Euro /piece
1000	28	20	A2XA100	52.00
	30	15	A2XB000	59.50
	31	25	A2XB200	56.00
	40	30	A2XC000	64.00
	50	40	A2XD000	67.50
	50	30	A2XE000	83.00
	60	50	A2XF000	71.00
	60	40	A2XG000	85.00
	70	60	A2XH000	74.00
	70	40	A2XK000	107.00
	98	88	A2XL600	118.00
	122	98	A2XL000	186.00



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	32.00
	40	30	R 3/4"	A6XC250	34.00
	50	40	R 1"	A6XD250	43.00
	70	60	R 2"	A6XH250	57.00
500	28	20	R 1/2"	A6XA500	50.00
	40	30	R 3/4"	A6XC500	52.50
	50	40	R 1"	A6XD500	63.00
	70	60	R 2"	A6XH500	79.00
750	28	20	R 1/2"	A6XA750	68.50
	40	30	R 3/4"	A6XC750	73.50
	50	40	R 1"	A6XD750	84.00
	70	60	R 2"	A6XH750	99.50
1000	28	20	R 1/2"	A6XA000	80.50
	40	30	R 3/4"	A6XC000	85.50
	50	40	R 1"	A6XD000	99.00
	70	60	R 2"	A6XH000	118.00



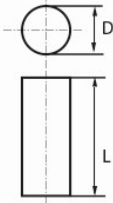

FILTER CARTRIDGES antistatic

L in mm	D in mm	d in mm	Connection fitting	Item number	Price Euro /piece
500	50	40	R 1"	A6XD500A	79.00
	70	60	R 2"	A6XH500A	98.00
1000	50	40	R 1"	A6XD000A	123.00
	70	60	R 2"	A6XH000A	148.00

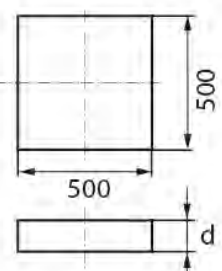
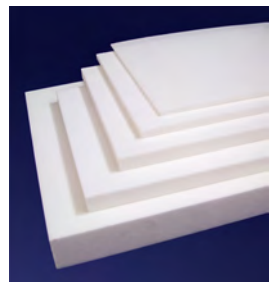


PE-porös AST (FDA)

FILTER TUBES / CAPILLARIES

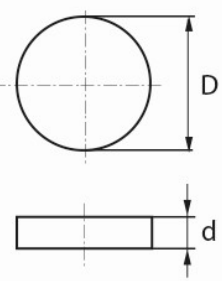

	L in mm	D in mm	Item number	Price Euro /piece	
	1000	10	A8XA600	64.50	
	15	A8XA800	71.00		
	20	A8XA000	80.50		
	30	A8XB000	104.00		
	40	A8XC000	126.50		

FILTER PLATES

	L x B in mm	d in mm	Item number	Price Euro /Stück	
	500 x 500	2	A1XB500	61.50	
	3	A1XC500	65.00		
	4	A1XD500	69.00		
	5	A1XE500	74.00		
	6	A1XF500	79.50		
	8	A1XH500	86.00		
	10	A1XK500	94.50		

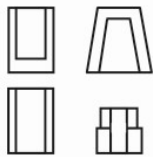

Multiple-layer filter plates with different pore sizes available on request.

FILTER DISCS

	D in mm	d in mm	VE in Stück	Item number	Preis Euro /PU	
	6	2	1.000	A1XBS06	69.00	
6	3	1.000	A1XCS06	73.00		
9	2	1.000	A1XBS09	105.00		
9	3	1.000	A1XCS09	111.00		
12	2	500	A1XBS12	92.00		
12	3	500	A1XCS12	98.50		
25	2	250	A1XBS25	126.50		
25	3	250	A1XCS25	140.00		

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