

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.

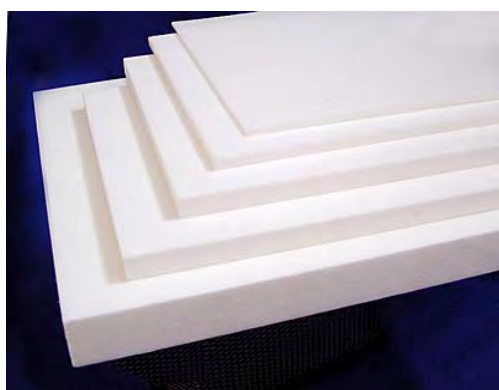
For use in filtering equipment of all kinds, we manufacture filter media in almost any geometry wanted, and in a wide range of filtration grades, from 1 µm to far over 100 µm.



Filter tubes and made-up elements



Shaped parts to customer specifications



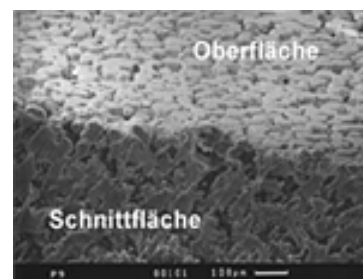
Filter plates, items cut to size, punched parts etc.

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	64.00
	40	30	A2XC000	77.00
	50	40	A2XD000	82.00
	50	30	A2XE000	99.00
	60	50	A2XF000	87.00
	60	40	A2XG000	103.00
	70	60	A2XH000	90.00
	70	40	A2XK000	133.00
	98	88	A2XL600	145.00
	122	98	A2XL000	224.00



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	39.00
	40	30	R 3/4"	A6XC250	43.00
	50	40	R 1"	A6XD250	52.00
	70	60	R 2"	A6XH250	69.00
500	28	20	R 1/2"	A6XA500	59.00
	40	30	R 3/4"	A6XC500	63.00
	50	40	R 1"	A6XD500	74.00
	70	60	R 2"	A6XH500	92.00
750	28	20	R 1/2"	A6XA750	80.00
	40	30	R 3/4"	A6XC750	86.00
	50	40	R 1"	A6XD750	99.00
	70	60	R 2"	A6XH750	118.00
1000	28	20	R 1/2"	A6XA000	94.00
	40	30	R 3/4"	A6XC000	99.50
	50	40	R 1"	A6XD000	116.00
	70	60	R 2"	A6XH000	139.00



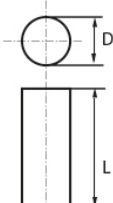

FILTER CARTRIDGES antistatic

L in mm	D in mm	d in mm	Connection fitting	Item number	Price Euro /piece
500	50	40	R 1"	A6XD500A	92.00
	70	60	R 2"	A6XH500A	115.00
1000	50	40	R 1"	A6XD000A	144.00
	70	60	R 2"	A6XH000A	173.00

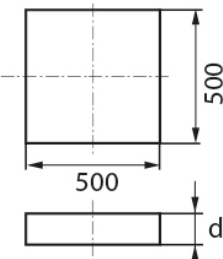
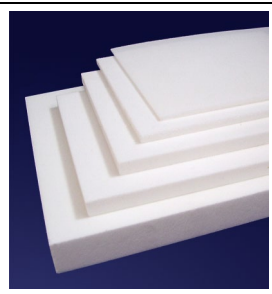


PE-porös AST (FDA)

FILTER TUBES / CAPILLARIES

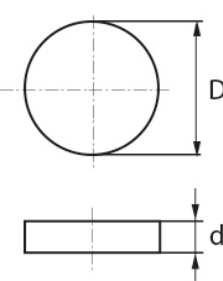

	L in mm	D in mm	Item number	Price Euro /piece	
	1000				
		10	A8XA600	76.00	
		15	A8XA800	84.00	
		20	A8XA000	95.00	
		30	A8XB000	123.00	
		40	A8XC000	149.00	

FILTER PLATES

	L x B in mm	d in mm	Item number	Price Euro /Stück	
	500 x 500				
		2	A1XB500	74.00	
		3	A1XC500	79.00	
		4	A1XD500	84.00	
		5	A1XE500	89.50	
		6	A1XF500	96.00	
		8	A1XH500	105.00	
		10	A1XK500	116.00	

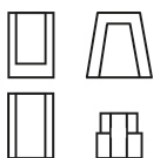

Multiple-layer filter plates with different pore sizes available on request.

FILTER DISCS

	D in mm	d in mm	VE in Stück	Item number	Preis Euro /PU	
	6	2	1.000	A1XBS06	85.00	
	6	3	1.000	A1XCS06	90.00	
	9	2	1.000	A1XBS09	128.00	
	9	3	1.000	A1XCS09	135.00	
	12	2	500	A1XBS12	112.00	
	12	3	500	A1XCS12	120.00	
	25	2	250	A1XBS25	154.00	
	25	3	250	A1XCS25	171.00	

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 	
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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