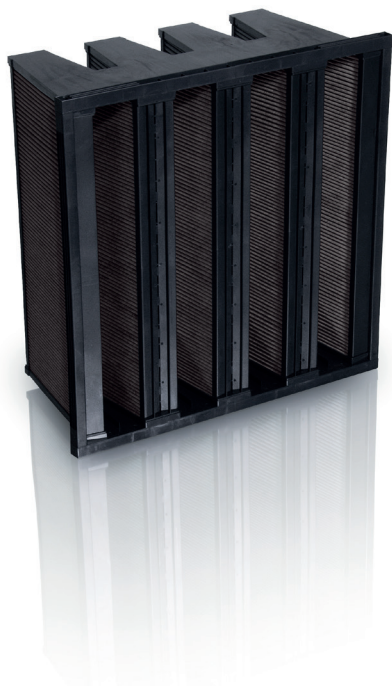




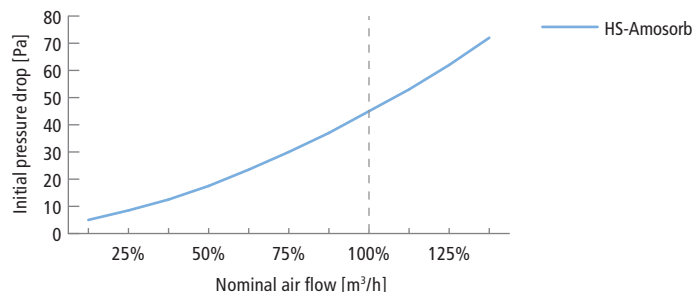
## HS-Amosorb



HS-Amosorb is developed specifically for the filtration of ammonia. Ammonia is perceptible for humans even in small concentrations above 5 ppm. Typically, a value of 50 ppm may not be exceeded at workplaces according to German regulations. The removal of ammonia from air flows usually requires relatively expensive means of molecular filtration filters or air scrubbers. Conventional activated carbon based ammonia filter, require a large amounts of sorption media and thus a high need for investment in order to achieve satisfactory filtration efficiency. Also activated carbon adsorbers typically operate with high differential pressures ( $> 400 \rightarrow 1500$  Pa) and subsequently cause quite high energy costs. HS-Amosorb offers a compact design that allows maximum efficiency at high flow rates even tolerant up to 145% overload with very low pressure differences. This is possible through the use of specific micro-ion exchangers, which remove in the course of a spontaneous chemical reaction, the gaseous ammonia almost entirely from the air flow. Due to the optimized design HS-Amosorb allows operation with very low pressure difference which leads to significant cost savings at ongoing operating costs. Compared to conventional activated carbon systems these costs can be reduced by up to 80% by using HS-Amosorb. Since Activated carbon filters work against a broad spectrum of pollutants and also trap humidity their durability and net efficiency against Ammonia is only lasting for a comparably short period.

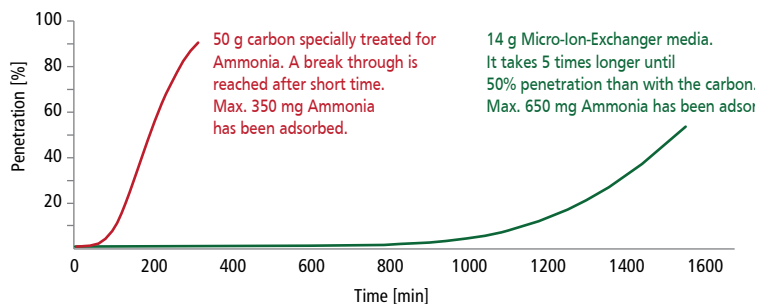
HS-Amosorb is only targeting for Ammonia and therefore offers a significantly higher net absorptive capacity with ammonia than any typical activated carbon filters.

HS-Amosorb				
Filtermedia		micro-Ion-exchanger on synthetic fleece		
Initial- $\Delta P$ [Pa] (static)		45		
Max. ambient temperature [°C]		65°		
Width	Dimension [mm] Height	Depth	Nominal air flow [m³/h]	sorptive capacity ammonia [g]
592	592	292	3400	550
592	490	292	1500	450
592	287	292	850	230

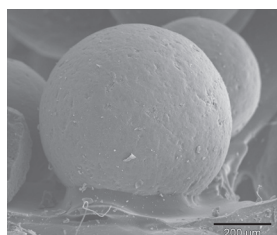
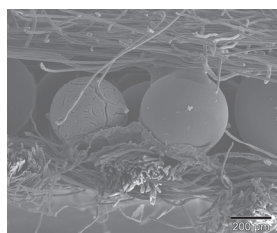


Frame	Polystyrene with 25 mm circulating flange, fitting for bag filter mounting frame (Dok.-ID: 10/D08)
Operational condition	rel. h. 10 to 95 [%]

Comparison of ammonia specific carbon vs. micro-ion exchanger at 10 ppm Ammonia concentration.



Gasket options	height [mm]	form
seamless foamed polyurethane gasket (standard)	6 or 8	
flat sectionized neoprene gasket	6 or 8	



Microscopic pictures of the micro-ion-exchangers @ 200 µm resolution.