

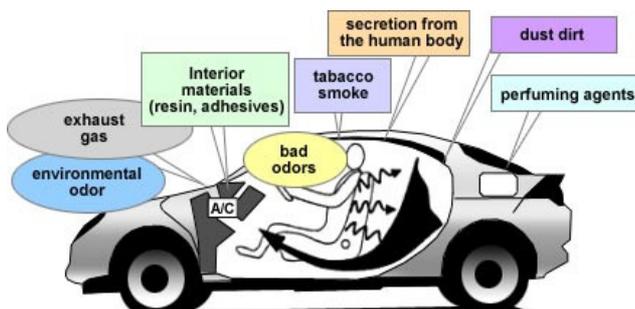


Technical Bulletin 6 CABIN AIR FILTERS

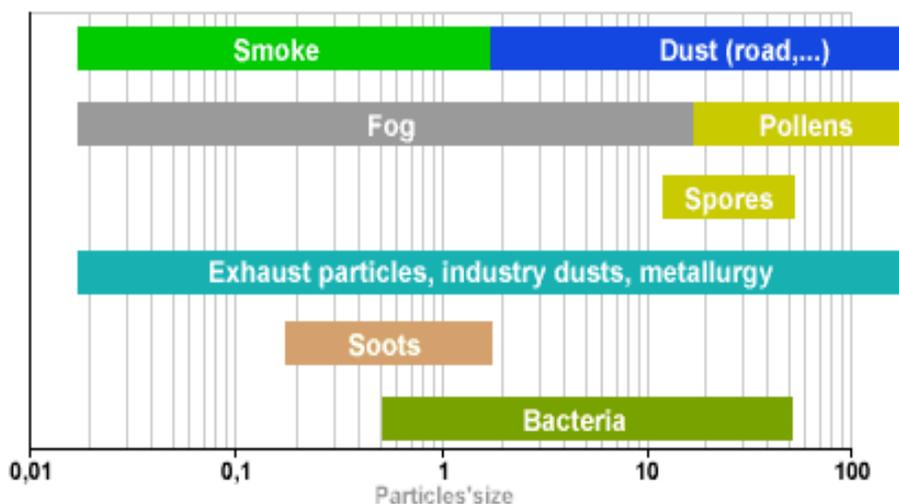
CABIN AIR FILTERS

Since the mid 1980's vehicle manufacturers started to use a new kind of filter in vehicles. This filter was used to clean the air coming inside the passenger cabin. Today cabin filters are available for almost all new models that come into the market.

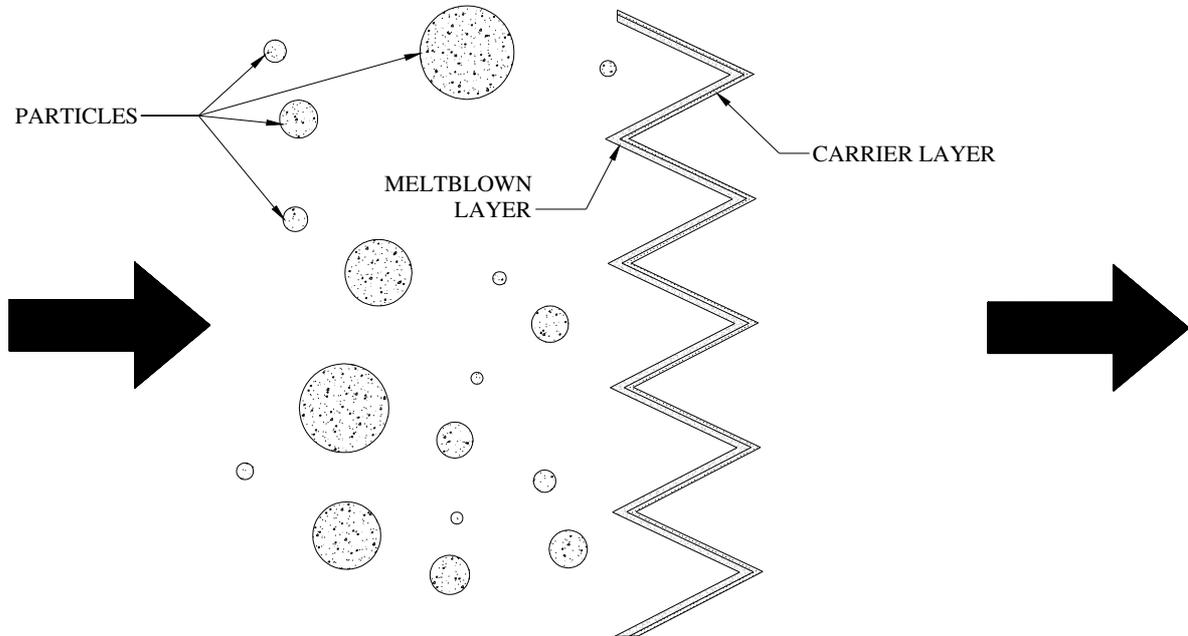
When the car moves, or when the ventilation unit of the car operates, the outside air is drawn on the inside of the passenger cabin. Along with the outside air, all impurities contained in it are also drawn inside the passenger cabin. Especially in urban areas the air contains large quantities of dust, pollen, soot and other particles, as well as gases which are harmful to health.



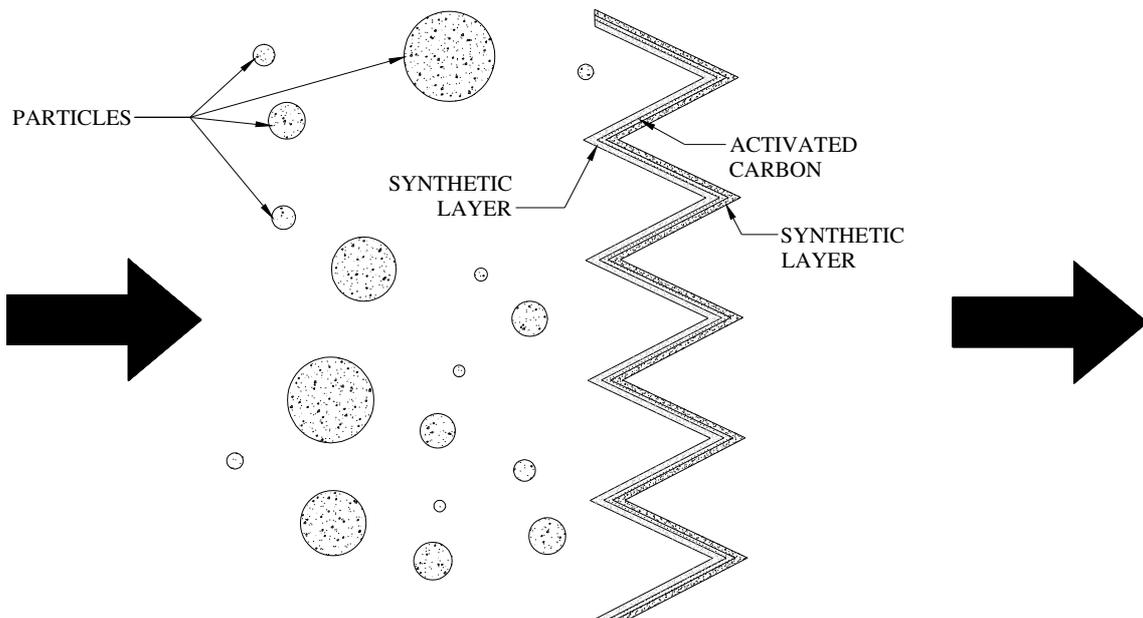
Initially the cabin air filters were designed to remove solid contaminants only, such as dust and soot. Today with the modern media used the cabin air filters can remove almost all particles above 3 microns and a high percentage of contaminants below 3 microns, such as pollen, exhaust soot, bacteria and mold spores.



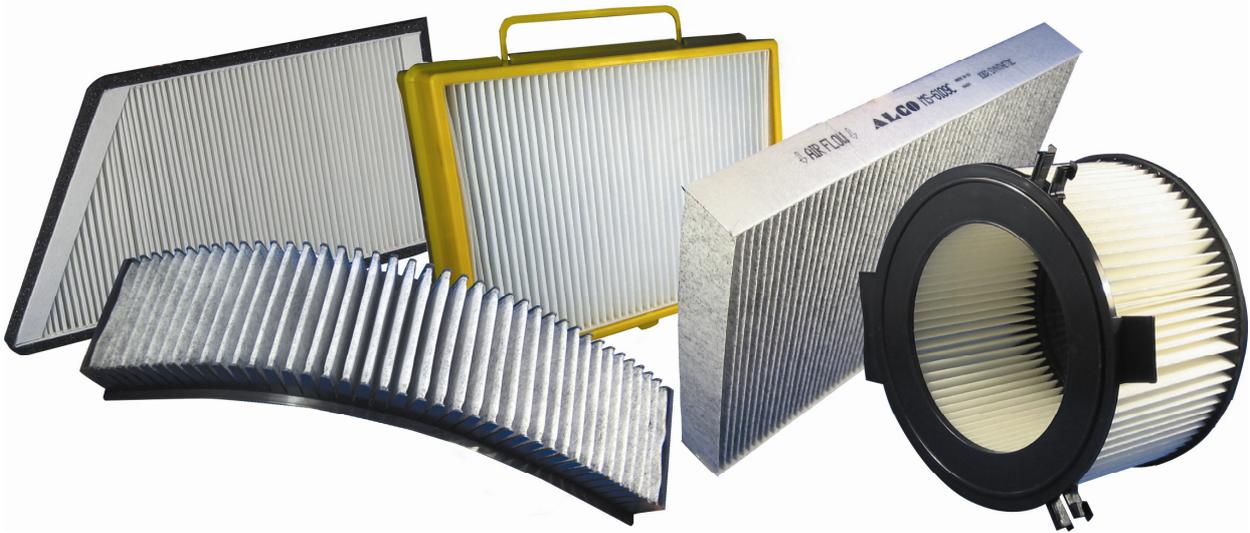
The cabin air filters manufactured by ALCO are using a pleated media which is made of two different layers. The bottom layer is a synthetic non woven layer which supports the meltblown layer which is manufactured using fine fibers. The meltblown layer can provide excellent filtration efficiency while at the same time it retains a high air flow inside the cabin.



A different type of cabin air filters that also exist are manufactured using a special media that contains activated carbon. These filters except from the particle retention offer the additional capability of absorbing harmful gases such as nitrogen oxides, fuels, ozone as well as other odorous substances. The activated carbon is a porous material with pores which are 10,000 times finer than a human hair. A teaspoonful of this activated carbon has a surface area larger than a football field.



The carbon media used by ALCO is manufactured with two different synthetic layers which in between them contain the activated carbon.



ALCO recommends changing the cabin air filter every 15000Km – or at least once a year ensuring clean air in the interior of the vehicle. Regular replacement of the filters can also extend the useful lifetime of the ventilation and air-conditioning systems.