Issue No.: 1/2011 – Cabin Air Filters with Activated Carbon

The air we breathe is full of harmful gases and particles such as particulate matter or soot. A MAHLE Original or Knecht cabin air filter with activated carbon keeps up to 99.5% of these pollutants out of the vehicle interior – and also absorbs unpleasant smells.

Thereby the activated carbon layer plays a major role. It absorbs the harmful gases (mostly hydrocarbons, hydrogen sulphide, sulphur oxide, nitrogen oxides and ozone) as well as pollen, soot and other particles. This leads to a significant relief in particular for humans with respiratory diseases as well as allergy sufferer.

The activated carbon layer of MAHLE Original and Knecht cabin air filters is sandwiched between two layers of fleece. A heat process is used to fuse the filter layers and therefore no solvent containing glues that are harmful to the environment and health are required.

Perfect quality is crucial for a high filter performance, since an air volume of up to 100.000 litres is blown into the vehicle interior, during only one hour driving. If the cabin air filter fails or when it is clogged up, the pollutant concentration in the interior of the vehicle can increase to six times of that of the outside air. This means that you start breathing in all those nasty things that a cabin air filter is supposed to protect you from. In addition, fungi and bacteria accumulate in the filter over time which can lead to nasty smells and harmful emissions in the vehicle interior.

Basic pre-requisite for a reliable filtering of the vehicle interior is the regular, professional change of filter elements. MAHLE recommends changing the cabin air filter every 20.000 km – however, at least once per year.

Figure 1: Every 20,000 km or once yearly, your cabin air filter looks like this – it gives you no protection at all!

Figure 2: Every 12 months: The cabin air filter is so clogged that even the activated carbon loses its effect.