MAHLE

HOMESSENGER

Issue no. 05/2019: Fuel filter elements with meltblown coating

In some MAHLE fuel filter elements (KX), the surface appears to have a somewhat coarser fiber structure than normal, but exactly the opposite is true: these are highly efficient microfibers, applied to the filter paper as an extra layer during the meltblown process.

The meltblown coating is applied only to the inflow side (raw or dirty side) of the filter, allowing optimal filtering of the fuel, which flows from the outside toward the inside. The extremely fine meltblown fibers with a diameter of less than 10 μ m retain dirt and

foreign particles even more effectively, while also increasing the service life of the filter.

With or without meltblown fibers, cleanliness is a crucial consideration when replacing the fuel filter, as unpurified fuel must never get into the clean side of the filter, and therefore into the fuel injection system. To minimize this risk, the remaining fuel should be drained out of the filter housing prior to assembly and disposed of in an environmentally friendly manner. Depending on the type, the filter should also be secured in the housing cover before insertion (see Figure 3).



Figure 1: Fuel filter KX386 with meltblown coating



Figure 2: Close-up of meltblown fibers



Figure 3: Depending on the type, the filter should first be secured in the housing cover.

→ IMPORTANT! When replacing the fuel filter, all gaskets need to be coated with clean fuel prior to assembly in order to prevent damage during installation! Once the filter has been replaced, the fuel system should be bled thoroughly. Always follow the relevant manufacturer specifications!

» See also Issue no. 08/2017: Bleeding the fuel system following a filter change

