BEKIPOR METAL FIBER MEDIA FOR EXHAUST FILTRATION

Jeremie De Baerdemaeker[1], Rik Dewitte[1]
[1]Bekaert Corporation

The industry standard for Diesel exhaust filters has for many years been cordierite or silicon carbide wall-flow filters. However, metal fiber media is an alternative to ceramics for low pressure drop applications.

Over the past decades, global exhaust emission standards have become increasingly stringent. During this period, the use of Diesel Particulate Filters (DPF's) has become one of the dominant technologies for exhaust gas aftertreatment of Diesel engines. In the next decade, the upcoming legislation for gasoline cars will drive the adoption of Gasoline Particulate Filters (GPF's). For over 15 years, metal fiber media plays an important role in a wide variety of Diesel exhaust applications. Metal fiber media allows for a partial open filter design, which enables reliable system operation at low loads and low exhaust temperatures.

Moreover, in closed filter designs, the metal fiber media offers an additional advantage over ceramic exhaust filters. When passing an electrical current through the filter media it will burn off the trapped soot. This regeneration feature has made metal fiber media the preferred solution for high idle or standby applications.

In our presentation, we will provide an overview on the characteristics of metal fiber media and outline some of the key properties of metal fiber media. These properties include low pressure drop, high temperature resistance, high porosity while maintaining mechanical strength.