

Disruptor™ Nanofiber Nonwoven Filtration Comparison to Polymeric Membranes

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Abstract

Ahlstrom Disruptor™ is a nonwoven, nanoalumina fiber based filter media with a two micron average pore size that has the ability to remove virus, bacteria and other submicron materials at very high efficiency. Due to the large pore size, the flow rate of the media is significantly higher and the pressure drop, significantly lower than that of polymeric membranes, which are often used for the removal of submicron particulates. This paper will present an explanation of the nanoalumina technology employed in Disruptor™ media and how a media having a two micron average pore size can efficiently remove nano sized and low molecular weight materials that are typically found in solution. Test data will be presented that compares flow rate, pressure drop and filtration efficiency of polymeric membranes to the nanoalumina technology.