

Benefits of Alumina Nanofiber Technology for Drinking Water
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Alumina nanofiber technology is enjoying increased acceptance in many applications within water filtration. The drinking water market can benefit from the performance benefits of alumina nanofiber media over conventional nonwoven media, polymeric membranes and carbon block for Point of Use (POU) and Point of Entry (POE) applications. The media efficiently reduces submicron or nanometer sized contaminants having low mass and negative electrical charge such as: endotoxins, virus, many particulate metals, bacteria, extracellular material and cysts. Filters using alumina nanofibers make an excellent media for the removal of particulates and natural organic material (NOM) that contribute to turbidity. Alumina nanofiber media filters water with efficiency similar to polymeric nanofiltration membranes but with a pressure drop and flow rate normally associated with nonwoven macro filter media. The alumina nanofiber media is easily processed on conventional converting equipment for integration into all types of filter configurations. This paper will discuss alumina nanofiber technology as related to drinking water applications.