

### **S3.6.2 DURABLE HYDROPHILIC TREATMENT OF WOVEN, NONWOVEN AND POROUS MEDIA**

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Naturally hydrophobic materials are used in a wide variety of applications where hydrophilic properties would be desirable. This is particularly true of filtration media. The development of durable hydrophilic treatments with broad media applicability has remained challenging. Sigma Technologies has explored a novel approach for imparting durable hydrophilicity to woven, nonwoven and porous media. This novel approach builds on Sigma's proprietary methodology for subatmospheric vapor deposition of organic materials. Used on its own, this treatment method can achieve moderate hydrophilicity. With an additional aqueous salt solution treatment, higher levels of hydrophilicity can be achieved. The treatment has been tested on a variety of material constructions and compositions and has been evaluated for durability in multiple ways, including autoclave. This presentation will describe the essential process steps, discuss the results achieved thus far, and recommend areas for further exploration.