

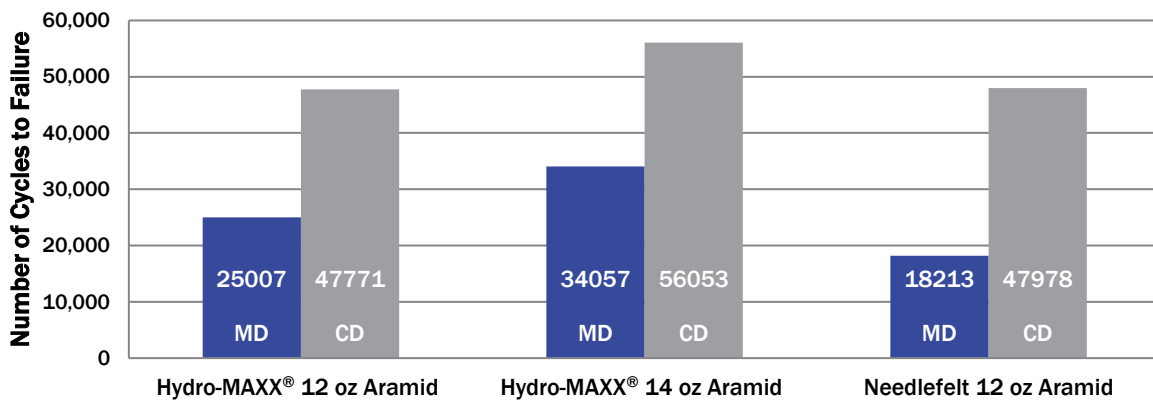


Introducing Hydro-Maxx®

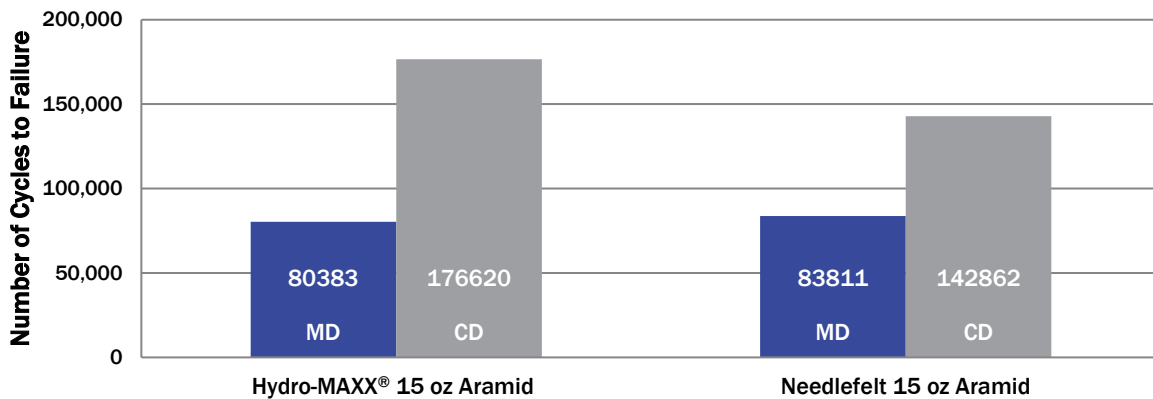
A Revolutionary Fabric Technology Delivering Improved Performance for the Industry

For many years, the industrial filtration industry has used needle felt non-woven material for baghouse filter bags. The Micronics Engineered Filtration Group - and trusted brands NFM and Filterfab - has recently introduced Hydro-Maxx® and Hydro-Maxx® HCE as revolutionary new alternatives to traditional needle felt filter media. These materials provide end-users and OEMs with dramatically improved filtration performance. A vital aspect of the fabric's filtration performance is the durability of the fabric over time. End-users and OEMs need filter bags which can withstand the mechanical fatigue associated with frequent pulse-jet cleaning cycles. Durability performance was studied by ETSI, Inc. - a third party testing lab for the filtration industry - using a standard test methods known as MIT Flex Test (ASTM D2176), comparing Hydro-Maxx® to traditional needle felt.

MIT Flex Test Results from ETSI
ASTM D2176



MIT Flex Test Results from ETSI
ASTM D2176





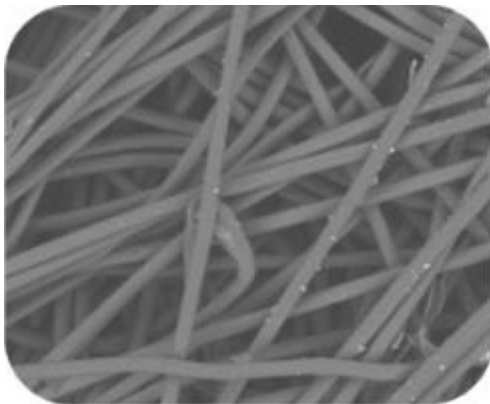
Hydro-Maxx® ability vs. Traditional Needle Felts

This ASTM standard test method uses samples of the fabric cut in both the machine direction (MD) and cross direction (CD) and is setup to cycle the fabric flexing repeatedly, simulating the mechanical fatigue initiated by the cleaning cycle. The test records the total number of cycles to failure. All fabrics tested were fiber supported (no scrim), and three replicates were used for each of the fabrics.

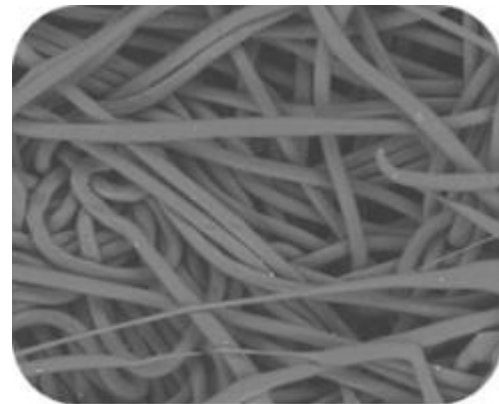
The aramid Hydro-Maxx® in 12 oz/yd² and 14 oz/yd² was tested along with a 14 oz/yd² aramid needlefelt fabric. The superior toughness of the Hydro-Maxx® felt can be observed with these results. At equal basis weights (14 oz/yd²), the aramid Hydro-Maxx® lasted 36% longer than the needlefelt when considering both MD and CD cycles to failure data. Likewise, the 12 oz/yd² aramid Hydro-Maxx® lasted 10% longer than the 14 oz/yd² needlefelt. Based on the superior filtration efficiency performance of Hydro-Maxx® versus needlefelt coupled with this durability performance, lighter weight Hydro-Maxx® options could be considered.

In the same testing with polyester felt, the Hydro-Maxx® felt demonstrates substantial improvement over needlefelt, showing that 15 oz/yd² polyester Hydro-Maxx® lasted 13% longer than the 16 oz/yd² polyester needlefelt.

It is the high-pressure hydro-entangling that the process is built around which enables the high-durability performance of Hydro-Maxx®. With its higher degree of hydro-entangling, more fiber-to-fiber intersections occur, leading to a stronger and more durable felt. The higher degree of hydro-entanglement is shown in the two Scanning Electron Microscope (SEM) images below, contrasting a traditional needle felt material with our high-performance Hydro-Maxx®.



Needlefelt 150X Magnification



Hydro-Maxx® 150X Magnification

The Micronics Engineered Filtration Group is happy to discuss how Hydro-Maxx® could bring value in your application. Please contact us to discuss how we may assist in executing a bag test in your application to see if Hydro-Maxx® is right for your baghouse needs.