Liquid Filtration Applications

Hollingsworth & Vose

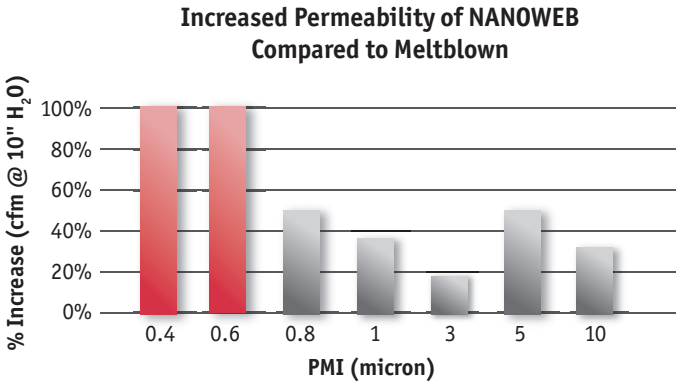
H&V's NANOWEB technology can be specifically designed to meet the stringent filtration requirements of many liquid applications. With improved efficiency, its synthetic composition offers a more durable option for fuel and lube filtration, plus the growing need for advanced microfiltration in life sciences, food and beverage, and process liquid filtration.

Hollingsworth & Vose is a world leader in producing superior media for high-efficiency liquid filtration applications. We are committed to delivering consistent innovation and reliable industrial supply to global markets. This innovative drive has led to the development of a new line of nanofibrous membranes incorporating fibers with diameters of 0.3 to 0.5 micron. NANOWEB® technology can be specifically designed to meet the stringent filtration requirements of many liquid applications. With improved efficiency, NANOWEB media's synthetic composition addresses the growing need for advanced microfiltration as well as reverse osmosis (RO) and ultrafiltration (UF) membrane prefiltration needs in a variety of liquid service applications. These include life sciences, food and beverage, and process liquid filtration. It also offers a more durable nanofiber option for fuel and lube filtration. Supplied as a standalone substrate, with thickness ranging from 100 microns to 200 microns depending on optimized properties and performance for a given application, H&V's NANOWEB technology offers superior filtration efficiency with lower pressure drop than that of conventional synthetic fibrous media. It does this by utilizing nanofiber technology to create millions of microscopic pores while maintaining a very durable and easy to work filter media. As a result, H&V's NANOWEB media offers an average of 40% higher porosity for a given micron rating when compared to standard product offerings.

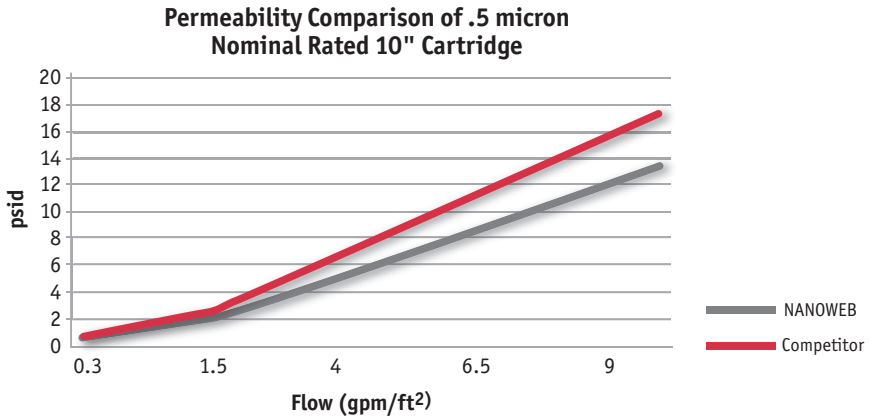
H&V's NANOWEB media incorporates multiple characteristics that offer unique features and benefits for liquid applications that include:

100% Polypropylene	A wide range of pH compatibility allowing use in most liquid streams and suitable for caustic or acid solution cleaning-in-place processes.
Standalone Substrate	NANOWEB does not require a support layer for protection. However, scrim is recommended for pleatablity.
Pure	No solvent leaching or extraction common with other nanofibrous material produced using solvent spinning. Does not depend on particle loading to achieve performance levels that can escape and contaminate downstream flow.
Durable	NANOWEB offers high strength for improved processability, constant efficiency retention, and longer filter life.

NANOWEB™



- 40% average increase in permeability when compared to meltblown at a given mean pore size
- Capability of achieving sub-micron rated material previously unattainable with conventional meltblown technologies (red bars)



Product	Basis Weight (g/m^2)	Total Weight (g/m^2)	Air Perm (cfm @ 0.5" H_2O)	PMI (micron)	Bubble Point (micron)	TMI (mils)
Competitor	55.1	55.1	1.4	1.5	8.1	4.2
NANOWEB	69.4	69.4	3.4	1	4.2	5.9

- When benchmarked against competitive media in the finished filter, NANOWEB offers improved flow characteristics at the same cartridge size and efficiency rating

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