



NONWOVEN TERMS

For the informed employee

Air Permeability

Nonwoven fabric is often used for air filters. To determine how to construct the fabric to perform as desired, we need a way to measure the flow of air through the fabric. The measurement of air flow through a fabric is called its air permeability. Sometimes nonwoven fabrics that are used for purposes other than air filters have an air permeability specification. This is because air permeability is also a measurement of how much open space between fibers is in a fabric. Thus it can measure effects of calendering, coatings, tightness of needling, fiber denier changes, etc. Air permeability is usually measured in cubic centimeters per minute or cubic feet per minute. The standard method for conducting an air permeability test is ASTM D737 which is a standard published by ASTM International.

There are several types of testing machines that can measure air permeability. The original was developed by the National Bureau of Standards in the 1940's. It works by measuring the difference in pressure on both sides of a fabric. That same type of machine is still being sold today and is commonly found in nonwoven plants. It is called The Frazier® Differential Pressure Air Permeability Measuring Instrument.

Portable Tester



FRAZIER 2000
DIFFERENTIAL PRESSURE
AIR PERMEABILITY TESTER



Digital Automated Tester



“There is no short cut to achievement. Life requires thorough preparation -- veneer isn't worth anything.”

George Washington Carver

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