

RESIDENTIAL FILTRATION TESTING

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This presentation presents a comparison between test methods for residential filters effectiveness at predicting filter performance in use. In application airflow, environmental factors, and occupant activities are variables that can change the performance characteristics of a filter. Appendix J and ISO 16890 are test methods that try to simulate the effects on filter efficiency. ASHRAE 52.2 is used to simulate loading. Here those methods are examined to better understand their effectiveness at predicting the filters performance characters in application for the best indoor air quality. For example, the results will show that while mechanical filters withstand these tests better in terms of efficiency, in application the efficiency is reduced because of fluctuations in airflow.