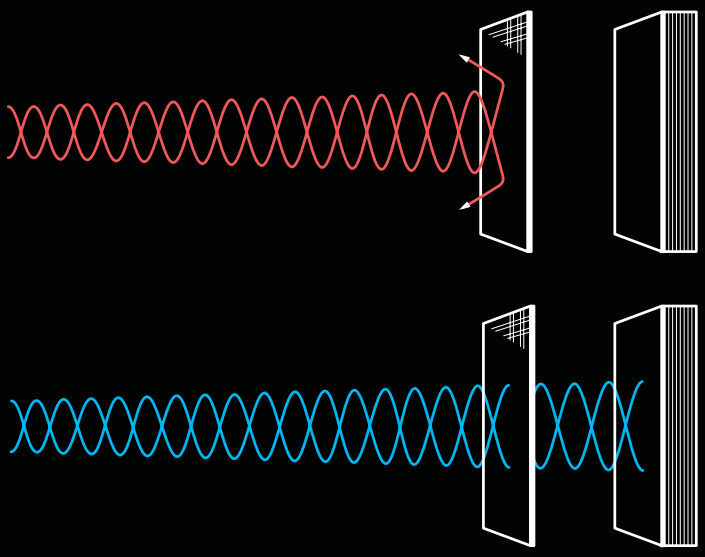
ACOUSTIC TEXTILES

duvaltex

FABRICS THAT DON'T GET IN THE WAY.

When the acoustic performance of a space really matters, you don't want to hobble sound-absorbing panels, walls and ceilings by choosing the wrong finishes. That would be an expensive mistake. Let us help. Our 50-plus patterns have been tested by an independent acoustical lab using the newest fabric testing methods. Going with proven performance takes the guesswork out of choosing appropriate fabrics for your project.

WHAT MAKES A GOOD ACOUSTIC FABRIC?



Reflection = Bad

Absorption = Good

In situations where acoustic performance is critical, a fabric's job is not to absorb sound itself, but to allow sound-absorbing products behind the fabric to do their best work. The fabric should never impede, or reflect sound, before it can travel to the absorbing product. All surfaces, fabrics included, reflect sound waves to some extent. The least reflective products do the best work as finishes for acoustic applications.

NRC Ratings

The NRC rating of sound-absorbing products are normally represented as a continuum of 0 — a highly sound reflective surface, to 1 — a surface that is almost entirely sound absorbing.

An industry-wide method of describing the sound absorption performance of acoustical materials is the Noise Reduction Coefficient (NRC) rating. With NRC numbers, the higher the number, the greater the sound absorption, the better for acoustically sensitive settings.

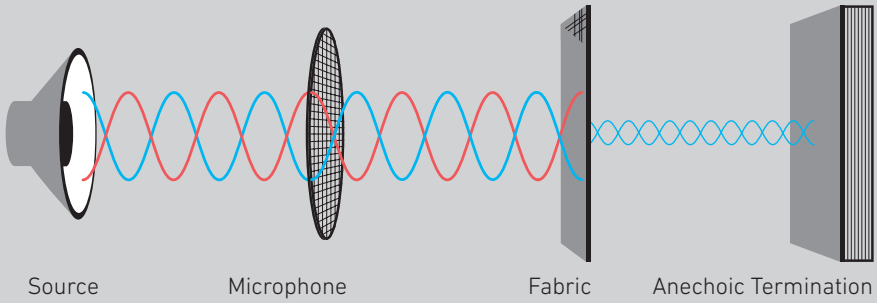
IT'S TIME FOR A NEW TEST.

The Old Test

For some time now, the textile industry and acousticians have understood that the testing methods we typically use to try to reach an NRC rating for a fabric is just not sensitive enough. Testing in reverberation rooms (placing fabrics over a hard or absorptive substrate) these methods can't do the job of distinguishing one fabric's noise reflection rating from another. It's the wrong ruler, like trying to measure the length of a room using your car's odometer.

The New Test

Today independent acoustics labs are using Impedance Tube Testing as described in ISO Standards. In a small chamber fitted with a speaker and a microphone, fabrics are placed over a standardized anechoic (sound-absorbing) termination point. This test provides an accurate measure of a fabric's sound reflection and provides a sensitive performance standard for comparing fabric to fabric among manufacturers who use this test. Because the fabrics are tested using a standard anechoic end-point, rather than a specific manufacturer's sound-absorbing product, the new test allows fabrics to be tested on their own merit, and gives designers and acousticians more meaningful data for making decisions.



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